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ABSTRACT

This report summarizes the results of a research project on the cost of providing instruction in French to students enrolled in French language instructional units in Ontario. Case studies were carried out in seven Ontario school boards consisting of four secondary and seven elementary panels chosen to present a range of geographical environments, population ratios, and enrollment sizes. The case studies considered Francophone educational needs in each locality, the level of services offered, and the associated costs. Estimates of per pupil expenditure for different types of service in all of the schools studied (slightly less than 300) were obtained. Three major outcomes of the study are presented. First, the researchers have defined a general theoretical framework for costing educational services for a linguistic minority. Second, the differential costs of instruction for different types of schools are analyzed both within and between school boards at the elementary and secondary level. Third, major areas are outlined in which, despite existing provincial subsidies, Franco-Ontarians have unmet educational needs and potentially suffer from a position of inequality in comparison with English-speaking persons. (Author/IRT)

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COSTS: FRENCH LANGUAGE INSTRUCTIONAL UNITS

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An In-Depth Study of Selected School Boards

STACY CHURCHILL, principal investigator
BROCK RIDEOUT
MOHINDRA GILL
RAYMOND LAMERAND

Research Team:
DOMINIQUE AUCOUTURIER
BETTY BENAYON
VINCE GAUDINO
MARIE-NOELLE MAILLARD
GILLIAN MARWICK
BILL POSTL

EA 010 834

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ABSTRACT

This report summarizes the results of a research project on the cost of providing instruction in French to students enrolled in French language instructional units in Ontario. Case studies were carried out in seven Ontario school boards consisting of four secondary and seven elementary panels chosen to present a range of geographical environments, population ratios, and enrolment sizes. The case studies considered Francophone educational needs in each locality, the level of services offered, and the associated costs. The methodology was far more intensive than that usually employed in studies of school board costs: Instead of analyzing data aggregated for entire boards, the researchers broke down costs to the level of schools. In this way it was possible to obtain estimates of per pupil expenditures for different types of service in all of the schools studied (slightly less than 300 schools). The final report is based on the case studies, which remain confidential. It presents three major outcomes of the study.

First, the researchers have defined a general theoretical framework for costing educational services for a linguistic minority. No such framework is believed to exist in the research literature; in fact, because existing studies almost always assume that education serves a majority langauge group and consider minorities only as "exceptions", it

was necessary to begin by a general reconceptualization of the concept of educational services as it applies to minority language groups.

The second major outcome of the study is an analysis of costs: Differential costs of instruction for different types of school are analyzed both within and between school boards at the elementary and secondary level. A follow-up study traces the origins of the expenditure patterns back to the official and de facto allocation policies of the different school boards, relating expenditures to different "models" of allocation decision-making. A series of prototype cases are analyzed individually to show that the "added costs" of minority language instruction can lead to conflicts in which both sides believe they are supported by the "facts".

The third major outcome is a study of major areas encountered where, in spite of existing provincial subsidies, Franco-Ontarians have unmet educational needs and potentially suffer from a position of inequality in comparison with English-speaking persons. The areas covered include the problems of Franco-Ontarians in mixed secondary schools, lack of cultural resources in the schools, and differential services offered to students and teachers. The identification of these areas and the requirements for new services is based in part on a supplementary study, done by questionnaire, sent to the principals of all mixed and French language secondary schools in the province. A separate report, available in xerox, covers the detail of the questionnaire survey and includes a separate study of the special needs of new schools created recently in accordance with Part XI, The Education Act, 1974.

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Dominique Aucouturier and Marie-Noëlle Maillard participated in the data gathering for and preparation of case studies.

Betty Benayon served as secretary and frequently as coordinator for our activities.

Vince Gaudino was responsible for all phases of the gathering of financial data.

Gillian Marwick was responsible for the survey of opinions of principals of French language and mixed secondary schools.

Bill Postl gave advice on and contributed to our data analysis.

A NOTE ON TERMINOLOGY

In popular speech several terms related to the topic under discussion are frequently confused. The following conventions are used in this report:

Anglophone: a person whose dominant language of communication is English. In Ontario today it is frequently the case that this dominant language has been acquired as a second language later in life. For various reasons it is understood that even immigrants whose knowledge of English is limited can usually be considered "Anglophones" as regards their choice of schools for their children.

Francophone: a person whose dominant language of communication is French. Usually French has been acquired as a mother tongue, defined as the first language which a person learned as a child and still understands.

Franco-Ontarian: a person living in Ontario whose mother tongue is French or whose main language of home and/or social communication is French. In common parlance the term is sometimes used restrictively to refer to persons of Canadian extraction whose families have lived as part of a Francophone community of Ontario for at least a generation.

"Second language instruction" refers to the teaching either of French to persons whose mother tongue is English, or English to native speakers of French.

Minority (French) language education or education in the minority language refers to the teaching of any subject to a member of a minority group in his/her own language. Thus, a course in histoire (history) may be taught in French to a group of Franco-Ontarian students. This course would be called "minority language instruction".

Minority group is a term applied to Franco-Ontarians living anywhere in Ontario, even though in some districts they represent the majority of the population.

Bilingual/bilingualism

A bilingual person speaks two languages. There are numerous degrees of bilingualism at the individual level; all are included in our usage.

A bilingual environment (area, situation) is one in which there are significant numbers of persons who belong to the two official language groups. The persons themselves may be unilingual. For example, the city of Sudbury is a bilingual area inhabited by English-speaking and French-speaking persons; some of these people are unilingual Anglophones or unilingual Francophones, whereas others may know both languages. (Many persons of non-English or non-French extraction may also retain knowledge of another language which is not one of the official languages, such as Finnish or Ukrainian.)

Institutional bilingualism occurs when an institution offers services and functions internally using two languages. The persons offering the services may be unilingual: for example, a unilingual English-speaking salesman might deal with Anglophone clients, whereas a unilingual French-speaking salesman could deal with Francophone customers. Institutional bilingualism does not necessarily imply personal bilingualism from all persons working in the institution or using it.

Bilingual school: see mixed school (below).

French language instructional unit: any grouping of one or more classes of Francophone students in which the main language of instruction is French. This includes: one or several classes housed within an otherwise English language school; groups of such classes in a separate wing of a school; or a school in which the main language of instruction is French for almost all subjects.

Mixed school: The term is officially used by the Ontario Ministry of Education to describe schools that offer courses in English to English-speaking students and in French to French-speaking students. The term is used in preference to bilingual school, owing to the confusion surrounding the word "bilingual" in popular speech. Most mixed schools are found at the secondary level.

Unilingual (French or English) school: The school offers courses in only one language (French or English) to persons of one language group. A French school enrols Francophone students and teaches them in French; English (or anglais) is taught as a subject, a second language. An English school enrols Anglophone students and teaches then in English; French is taught as a subject, a second language. "Unilingual" French secondary schools in Ontario frequently offer some subjects taught in the English language.

SECTION I: THE PROBLEM AND THE APPROACH

This research deals with the costs of providing instruction in French to students enrolled in French language instructional units in Ontario. The purpose is practical: to provide background information of use to the public and the Government of Ontario in making decisions about financing programs for the education of Franco-Ontarians. We have studied in detail the services offered to Franco-Ontarians, along with the associated costs, in a selected sample of eleven school boards[1] and, in addition, have made sub-studies of specific related issues. This has only been possible through the cooperation and assistance of personnel in schools and school boards across the province, whose tolerance and understanding is gratefully acknowledged.

The basic problem of our research is: How much does it cost to educate Franco-Ontarians in their own language? There is, in fact, no simple answer to this, any more than there is to the question: "What is the cost of living?" It depends on how you live and what you mean by "cost". Since it is possible to educate people in different ways at a cost that varies according to what is being done, we have also had to ask: What level of educational service is being provided? In turn, this raised the issue of what is meant by educational service, particularly in the light of the problems of a linguistic minority. Our research makes, we feel, two major contributions: First it has dealt with costs and services from several viewpoints, providing numerous partial answers to the general problem. Secondly, the work has given a more precise definition of the general problem than is, to our knowledge, currently available in the literature. Rather than a "problem", we are dealing with a series of interrelated questions. Clarifying the issues is of major importance because it demonstrates that choosing a single definition -- and a single research approach -- would ordinarily dictate a single conclusion. And, on so difficult an issue, a single conclusion would be so misleading as to be dangerous.

Public opinion, political figures and the press media share a common concern for the problems of French-English duality in Canada. Unfortunately, the arenas of public debate are seldom provided with the type of detailed, exhaustive analysis of problems which, alone, may lead to informed decision-making. The report that follows is intended to provide information on one aspect of the public debate. Despite the numerous shortcomings inherent in any research study on so complex an issue, we trust that our findings will assist in the search for means to provide equal educational opportunity for those whose native language is French.

1. BACKGROUND

1.1 DEVELOPMENT OF A FRENCH LANGUAGE EDUCATIONAL SYSTEM

One of the most spectacular accomplishments of Ontario since the mid-1960's has been the rapid extension of the educational opportunities offered to Franco-Ontarians. Prior to that period, French-language education was available in tax-supported schools only through the end of Grade 10, almost exclusively through the Roman Catholic Separate Schools of the province; a few French language elementary schools did exist in the "public" school boards, but they were rarities. Secondary education beyond the end of

Grade 10 was only available in French in privately supported schools and academies, usually maintained by the Roman Catholic Church in areas with heavy concentrations of Francophone population. Confronted with rising demands for secondary instruction in French, the Ontario Department of Education responded initially by permitting secondary courses in a limited number of subjects -- français (already traditionally taught as a special course for Francophones), histoire and géographie.[2] The decisive step was taken with the introduction of legislation in 1968 authorizing public school boards (who have sole jurisdiction for maintaining public tax-supported secondary schools up through Grade 13) to operate secondary schools partially or entirely in the French language. In a few short years, the total enrolments of Francophone students in French language secondary school programs rose rapidly, reaching a high of 31,392 in 1975, the most recent year for which figures are available.[3] The secondary schools have provided the bridge from elementary education (which remains overwhelmingly in the separate school system) to the university, to which large numbers of Franco-Ontarians are now acceding for the first time.

These developments occurred with what appears, in retrospect, to have been minimal conflict. Tensions existed, of course, but most problems were easily resolved at the local level, unless special circumstances intervened. The most acute case of conflict appeared in 1970 at the town of Sturgeon Falls, in an area where Francophones constituted an overwhelming majority of the population. The demand of many Francophones for a unilingual French school (a mixed high school already existed) led to a significant mobilization of local opinion, student demonstrations and public meetings. The dispute immediately captured the attention of the media throughout the province and, as a "test case", served to set the scene of later developments. Dr. T. Symons was named to head a Ministerial Commission of Inquiry into French language education. Through his mediation, the dispute in Sturgeon Falls was finally settled in a manner consistent with the request of the Francophones; more importantly; the activities and report of the Commissioner paved the way for new legislation, which was codified in The Education Act, 1974.[4] The new laws extended the rights of Francophones, particularly by the establishment of a conflict-mediating mechanism, the Languages of Instruction Commission of Ontario. The role of the Commission has been primarily to ensure that, if a school board fails to act on a request by Francophones under the legislation, the Francophones can seek an outside examination of their case. The resulting mediations and public enquiries have considerably reinforced the rights of Francophones.

The new legislation has resulted in a further extension of French language education, though certainly less spectacular than the developments following the 1968 bill. The main effect has been the creation of elementary schools in parts of the province where the very low density of the Francophone population had previously made it appear unfeasible. Secondary school creation has slowed, with one having been formed recently in Hamilton and another under study (and active debate) in the County of Essex. In numerous cases the Language of Instruction Commission has been called upon to appoint a mediator or to carry out an official investigation of circumstances in connection with the creation of new schools. The accommodations reached may not always have been entirely satisfactory to the parties involved in the disputes, but the general impact of the commission's activities has been what was intended -- to facilitate the extension of minority language educational rights while preserving an atmosphere of understanding in the communities involved.[5]

1.2 THE FINANCIAL FRAMEWORK FOR FRENCH LANGUAGE EDUCATION

The development of French language schools during the past few years would have been impossible without firm financial backing from the different levels of government. As a result of recommendations made by the Royal Commission on Bilingualism and Biculturalism, the Federal Government makes available to the provinces considerable sums of money to finance both education for official language minorities (Anglophones in Quebec and Francophones in the remainder of the provinces) and the teaching of the official languages as second languages (French to Anglophones and vice versa). Grants are made to provinces on the basis of the number of persons enrolled in the respective programs.

At present the grants for educating official language minorities in their own language are given at the rate of 9 per cent of the provincial per pupil costs. The amounts are prorated for students not full-time in minority programs. A further grant to cover costs of administering the programs is provided at the rate of 1.5 per cent of the average annual per pupil costs, based on the total number of school-age children in the province belonging to the minority language group (determined from census data). A grant of 5 per cent of a prorated portion of the average annual per student costs is given for pupils enrolled in second language programs. The prorated portion is dependent upon the proportion of the day spent studying in the second language (e.g. 10 students each spending 10 per cent of the day would equal one full-time equivalent student for grant calculations). Through this mechanism the Ontario Government received in fiscal 1974-75, for example, a total of $16,710,062 divided as follows: minority education (9 per cent) $10,372,096; second language (5 per cent) $3,879,384 and administrative costs (1.5 per cent) $2,458,582.

Since the delivery of educational services is the responsibility of local school boards, development at the level of the schools depends upon the grant structure set up by the provincial government to assist boards. In simplest terms, the present system is based upon a sharing of costs between the provincial and local level; the provincial share is varied to take into account the ability of local sources of taxation to provide funds.

The basic mechanism for adjusting the provincial share of costs consists of a two stage calculation. In the first stage the boards calculate what portion of their expenditures are eligible for assistance ("recognized for grant purposes"); in the second stage they calculate the portion of the recognized expenditures which the province subsidizes. Each stage involves the use of a different kind of weighting factor, one reflecting local educational needs and the other local ability to raise taxes. Each year the province fixes a maximum allowable expenditure per pupil which it will recognize for grant purposes; for example, in 1976, the figures were $1080 for elementary pupils and $1556 for secondary pupils. In stage one of the calculation process, the boards calculate their eligible expenditures on the basis of average daily enrolment and by means of "grant weighting factors". The grant weighting factors, established through complex formulae for each individual board, are used to increase the amounts recognized for each pupil in the light of specific local conditions and needs.

Thus boards have differing amounts of "recognized ordinary expenditure" for which they can claim provincial grant assistance. In the second stage, the amount paid by the province is determined by the "rate of grant", a second weighting factor calculated to reflect the local tax assessment base (that is, the value of property in the area as assessed for local taxation purposes). Multiplying the rate of grant by the expenditures recognized for grant purposes determines the amount received from the Provincial Government. For boards of average wealth in 1975 and 1976, the Province paid 60 per cent of the recognized ordinary expenditures for elementary education and 54 per cent for secondary education.

Although the above discussion barely scratches the surface of the workings of the grant system, it suffices as a background to understanding how provincial funds are channelled to minority language education. This happens through two main mechanisms. The first mechanism intervenes when "recognized ordinary expenditure" is calculated. It applies only to secondary education and involves an adjustment of the grant weighting factor for school boards having smaller secondary schools with programs in two languages. The eligible French-English composite schools are generally defined as having at least 10 credits taught in each of the two languages and as offering a total of six commercial and technical courses (in either language). The factor varies according to size of school; the increment for pupils enrolled in such schools ranges from 25% for schools of less than 400 pupils to one per cent for schools enrolling 860-879; larger schools do not qualify for these allowances. (For further information, cf. Appendix C: Technical note on methods of calculating revenue for Francophone secondary school students.) The second mechanism -- the more widely known of the two -- is a capitation grant based on the number of students enrolled in a French language instructional program. At the elementary level, the first stage of calculation is to multiply the number of full-time students enrolled times $54 (prorated for half-time students); at the secondary level, $39 is allowed for each subject taken in the French language by a Francophone student, up to a maximum of five subjects per student, or a total of $195 per year. At the second stage, the grants are multiplied by the board's rate of grant. For example, if a board's rate of grant were .65 at the elementary level, then the amount received per pupil would be 65 per cent of $54, or $35.10.

A final type of special grant exists for those boards which, in response to the requirements of The Education Act, 1974, create new French language elementary classes in a school where none existed before. A one-time grant is given to assist boards to meet "start-up costs" at the rate of $5400 for the first such class in a school, $3240 for the second and $2160 for the third. (No allowance is made for the fourth or subsequent classes.)

In practice, one cannot add up all the French language grants to all the school boards and arrive at an accurate estimate of provincial expenditures on French language education, for there are various other amounts "hidden" in different portions of the basic grant system -- for example, in the subsidies for transport and for the capital costs of school buildings (part of the class called "extraordinary" expenditures). In a more important sense, however, the basic cost of education is covered through recognized ordinary expenditures.

Analogous mechanisms also exist for encouraging instruction in the French language for Anglophones in Ontario. For the period covered by this study, the provincial grant structure allowed for calculation of recognized ordinary expenditures at the rate of $54 per student enrolled in twenty minutes or more of instruction per day in French; the same rate applied to both elementary and secondary levels.

1.3 CURRENT ISSUES OF PUBLIC POLICY

The brief sketch of background information above will help in understanding the general questions being currently raised in relation to the costs of education for Franco-Ontarians. Although our study deals with only limited aspects of the problem, it is necessary to outline some of the major contentious issues which form a background to the research. In point form, here are some of the more obvious ones:

1.3.1. Federal-provincial negotiations

The present system of sharing costs between the Federal and Provincial Governments is currently being renegotiated. Statements by Federal officials suggest a desire to ensure more effective use of funds through some form of earmarked grants; the eventuality runs counter to traditionally held positions of most provinces. Agreement appears to exist around the utility of better and expanded programs.

1.3.2. School board finance: Francophone pressures

Various sectors of opinion in Ontario are strongly concerned to ensure that funds provided for education of minority Francophones should be effectively spent to further their education. Pressure has been brought to bear in petitions and public statements requesting that (a) federal grants for bilingualism be more directly channelled to school boards in a way that would ensure every dollar received from the Federal Government is reflected in a corresponding grant to the school boards having Francophone students, and (b) provincial grants to the school boards should be channelled onward to the specific schools having Francophones. With respect to some boards, the charge is sometimes made that the French language grants are not used on behalf of the Francophone students but simply to reduce levels of local taxation.

1.3.3. School board finance: Anglophone pressures

The extension of French language education in the province in the last few years has only been possible because of widespread support among the Anglophone majority. Nevertheless, substantial numbers of citizens still view these events critically. At the local level, one frequently finds the opinion that changes favouring French language education originate at the provincial level and that it is therefore the duty of the Provincial Government to pay the entire cost of any increase in services to Francophones. Although the issue of costs is sometimes used in public debate by certain persons who oppose the general principle of providing French language education to Francophones, this is certainly not true for everyone who takes a critical attitude towards the adequacy of the current grant structure. It is possible to favour such education and yet demand that a greater share of costs be paid from provincial revenue sources.

1.3.4. School board finance: General financial pressures

Various factors have combined to increase the concern of local school boards about their finances. Rampant inflation in the last few years has substantially increased basic costs; modifications in the percentage of costs borne by the Provincial Government have increased the amount of taxes levied locally; and most school boards are faced with a shrinking number of students, the result of changed demographic patterns. Whereas many fixed costs remain constant, shrinking student numbers are met with proportionate reductions in financial assistance. The result, in straightforward terms, has been a "crunch", in which boards have been forced both to increase taxes and to sacrifice many services and programs previously considered important. Owing to the recency of the creation of secondary school programs for Francophones, there is a possibility that public opinion may tend to view these as temporary measures suited to times of prosperity but subject to being cut when times get hard.

1.3.5. The mixed secondary schools problem

For a variety of reasons, some school boards have placed strong reliance on the mixed secondary school as the main vehicle of education for Francophones. Such schools are attended by students from both language groups, who are free to choose from a variety of subjects offered in French and English. Problems arise because, with a given pupil:teacher ratio, it is usually not possible to offer a full range of courses in both French and English; in practice, Francophones ordinarily only have a broad choice at the lower levels (grades 9 and 10). In many places, student and parental demand for course offerings in French is running up against various fiscal constraints. Alternatives include: reorganizing school boundaries to create separate, unilingual schools for French- and English-speaking students (where this is possible); decreasing English language offerings to enable more resources to be used on French instruction; or increasing the resources available to mixed secondary schools.

1.3.6. The new schools problem

The Education Act, 1974 contains provisions that, as stated earlier, have made it possible to create new schools for Francophones in areas where previously none existed. These provisions raise several problems: The first is whether present financial assistance to school boards is adequate to cover a fair portion of the costs ensuing from such new creations. The second is whether such schools provide an adequate level of service for the children concerned. The question arises because the new schools are frequently created in boards having no other French language schools; as a result, the new institutions are somewhat "isolated", and the staff do not have access to the full range of additional assistance and resources usually available from boards. If it is felt that the level of service is inadequate, as many Francophones claim, then a final major problem arises about the most useful way of providing the required additional services.

1.3.7. The major problem: Unequal opportunity for Francophones

Underlying all the issues discussed previously, there is a single dominant problem: By and large, the educational system provides a lower level of service to Francophones than to Anglophones. There is certainly no unanimity that the system should provide equal service to Francophones; in fact, the present unequal situation is a direct outgrowth of deliberate policies rooted in history and the balance of political forces in the province. The extension of opportunity of the last few years represents a departure from what were once the deeply held values of large sectors of opinion in Ontario. Only a future historian will be able to say with hindsight whether a decisive change has occurred, though this appears likely. Assuming that equality of opportunity for the two language groups will gradually become accepted as a goal of the educational system, it raises subsidiary issues: How can this best be achieved? What are the best stimuli -- legislated rights, financial incentives to school boards, or some combination of the two? What is the best financial system to ensure the achievement of the goal? And so on. For the present, public policy is firmly committed to this search for greater equality, and our research is explicitly based upon the assumption that this policy will remain in force.

2. THE PROBLEM AS DEFINED IN THE RESEARCH CONTRACT

This research study was undertaken in response to the terms of a contract concluded between the Ontario Ministry of Education and the Board of Governors of the OISE in February 1976. The contract defined a very broad range of issues to be examined and set certain requirements with regard to the approaches to be adopted.

2.1 TOPICS FOR EXAMINATION

The contract specifies that "in areas of low and medium concentration of Francophones" the research will:

a) examine the minimum support and specialized services that should be available to small and to medium enrolment Francophone populations at both the elementary and secondary levels in both homogeneous and mixed situations;

b) examine the services provided by the Regional Offices of the Ministry of Education in meeting the needs determined in a);

c) examine the resources and the associated costs to a school board which institutes a program under Part XI of The Education Act, 1974;

d) examine the costs to a school board associated with maintaining the present programming level;

e) examine the additional costs to a school board which can offer education in French as a first language at a few centres only;

f) examine the use of para-professionals and consultants as support staff;

g) examine the costs incurred where a board offers the resources in f);

h) develop a model for a level of service which would provide a "quality" education program for Francophones in these schools;

i) examine the costs associated with the model developed in h).

2.2 APPROACH

The contract specifications also include certain basic requirements as to the approach to be used: the research is to be carried out by means of intensive case studies, with follow-up studies as required to validate research instruments. The geographical area is delimited by the reference to "areas of low and medium concentration of Francophones" in the province. Within these specifications, the operational definition of activities has been carried out through discussions with Ministry of Education supervisory officials. The case study approach implies certain specific limitations to generalizability of findings which will be discussed later. The sample, described more fully below, includes case studies in eleven school boards as well as studies of an additional six schools in other school boards; in addition, data have been sought from various other sources such as two Regional Offices of the Ministry of Education, the Languages of Instruction Commission of Ontario and the principals of all high schools in the province having French language instructional units in their schools.

3. GENERAL APPROACH

3.1 THE CASE STUDY APPROACH

The case study approach is frequently used in different branches of social science research as a means of dealing with problems where initial hypotheses are hard to define, data sources are difficult to fit easily within standard categories, and the cases being studied are likely to be so varied that simple comparisons and averages might be misleading. At the conclusion of our study, we feel confident in affirming that all these characteristics apply to the domain studied and fully justify the use of the case study approach.

The limitations of case study approaches are well known. The most important limitation is the difficulty of making generalizations from findings. The significance of this limitation can be grasped by comparison with a simplified model of survey research: Survey research is based upon a carefully chosen sample of subjects for study, the sample being "chosen" with care to ensure that the subjects are "representative" of the whole group about which conclusions are to be drawn; at some stage in choosing the sample, an effort is made to ensure that the subjects are "randomly" chosen, so that the researchers' bias is eliminated. The sample is then surveyed and conclusions drawn from the analysis of the data gathered. Provided that the sample is representative, the numbers of subjects studied sufficiently large. and the research methodology soundly based, then the conclusions can be drawn from the sample and nevertheless applied to the whole group from which the sample is drawn. The rules used for drawing conclusions and applying them to a large population, a process called "inference", are based upon mathematical principles which, in order to be valid, require minimum numbers of subjects to be studied. Surveys frequently involve hundreds of subjects in order to ensure accuracy of findings.

No such methodology could be applicable to the present study. Only a relatively small proportion of the school boards in Ontario have French language instructional units. The conditions of their operation vary widely and there was no reason to assume that the cost problems in one area were necessarily the same as in any other. In fact, there were a priori reasons for assuming the contrary. For example, in some parts of the province, French language elementary schools have existed since the last century; in others, schools have been created in the last two years for the first time. Matters were further complicated by our discovery, in searching the literature, that there were virtually no comparable studies in existence on which to base our hypotheses and methodology. The nearest methodological "relative" of our problem was to be found in the craze for program budgeting which affected educational circles in the late 1950's and most of the 1960's. Some of the analysis techniques could be borrowed, but extreme care was necessary. Program budgeting proved a debâcle in many of the educational settings where it was applied; numerous methodological problems were never overcome; and, to top it off, the technique is primarily one of management within a single administrative system, not a methodology of making scientifically generalizable conclusions.

Our use of the case study approach involved the following major characteristics:

3.1.1. Selection of prototypes for study

The choice of school boards to be included in our "sample" (we shall use the term for convenience) was intended to provide as broad a range of different cases as possible. Even if it is not possible to draw general inferences from the group of cases studied, it is likely that the cases are similar to most of those likely to be encountered in other boards in the province (excluding large urban areas, which were separately studied by other researchers). In a word, the cases are "prototypes". (Prototype: "a standard or typical example", Webster's Seventh New Collegiate Dictionary.)

3.1.2. Use of integral geographic units for study

Because French language instructional units are usually administered at the elementary level by Roman Catholic separate school boards and at the secondary level by public school boards, our cases are chosen to take into account possible interactions. The eleven boards studied are located in four geographical areas (counties or districts). One secondary board operates in each area (total of four in sample). The remaining seven elementary boards in the sample included "paired" elementary boards -- one public and one separate -- from each of three areas. One additional elementary board is included from the fourth area.

3.1.3. Eclectic use of observation and research techniques

Our work has been based on using whatever tools were appropriate for the problem at hand. Financial data have been gathered using standard accounting techniques; interview schedules were preferred to questionnaires in dealing with the study of services in boards, but a carefully constructed attitude scale was developed to assess opinions on existing services, and so on. The list could continue, but this suffices to illustrate the variety.

3.1.4. Flexibility in carrying out the study

It is inherent in the approach that it should be flexible. For this reason, as work has progressed, we have frequently adapted the design to incorporate new elements. One example of this is the decision to give special attention to the problem of mixed secondary schools (dealt with in a later section).

3.2 ADDED COSTS AND DIFFERENTIAL COSTS

Vocabulary frequently reflects underlying attitudes and philosophical orientations. For this reason, we have attached particular emphasis to the choice of terms used in our research to describe its objective. It is important that basic concepts be clarified. If common usage is adopted uncritically, there is a danger that results will be biased in ways which are not always predictable. Throughout the research we have been confronted with a series of terms which lend themselves to confusion: "added cost of French instruction", "additional costs of French", "the price of bilingualism", and so forth. Paradoxical as this may seem in a cost study, we reject most of these terms as being unacceptable as a starting point for our research. In a nutshell, they assume that bilingualism is a one-way street, a concession made by a majority to a minority, rather than a basic right of two human groups living in equality and mutual understanding. There may indeed be a "price of bilingualism", just as there would certainly be a very heavy price to pay if bilingualism were refused. But it is not correct to assume that the costs are due to one language group. If two groups have unequal rights in a society, it may cost something to change the situation and give both equal rights. However, once the groups are equal, how can one assume that one group's rights are somehow more "expensive"? A fundamental philosophical stance precludes us from assuming that the privileges of living in a society of equals can somehow be split into fractions, to each of which is associated a specific price tag.

The study that follows does have the effect of putting price tags on specific services. But at no point can there be any clear basis for assuming that the costs are imputable to one language group. We shall be at pains to explain at various points in the study the implications of our findings, but in different terms. The concept "added cost of French language instruction" does have a straightforward meaning in one context -- when it is used to describe the cost of creating something new that does not exist at the present time. But, in any other context, its precise definition poses difficult analytical problems. Let us now turn to a discussion of terminology dealing with specifics. Three contexts are important: the contexts of (1) costing existing services to a linguistically mixed population, (2) creating new services or expanding new ones, and (3) costing resource inputs.

3.2.1. Context of existing services to a linguistically mixed population

It is difficult to distinguish the "added cost of French education" from other educational costs in a mixed population situation, at least in a general sense. It was decided, in the design of the case studies, that all costs incurred in the boards and schools being studied should be allocated either to English or French instruction. In this way, we are able to identify, for example, per-pupil cost of English instruction and per-pupil cost of French instruction. But, subtracting one per-pupil cost from the other will not yield an "added cost of French education"; it will show a cost differential for a specific situation that should be carefully labelled by some other term than "added costs".

An example should illustrate the type of confusion arising from the use of the terminology of "added costs". Suppose one selected for analysis a hypothetical school board that operates schools in both English and French; the population is, let us imagine, 80 per cent French speaking and 20 per cent English-speaking. In this context, which applies to certain existing school boards in Ontario, speaking of "added costs of French instruction" would possibly be contradictory, since the special problems of dealing with a minority arise for the English-speaking students. In terms of historical development, "added cost" might appear to suggest a hypothetical situation in which our present system of French language instruction is viewed as some sort of costly luxury added to the English system. In order to use this framework for calculating costs, one would have to compare against some situation in which English was the only language of instruction and control for all relevant variables affecting costs -- a patent impossibility if one does not want to swallow an enormous set of unprovable hypotheses. Besides, for the areas of the province in which there is a large, established Francophone population, the school system has never been 100 per cent English, despite certain prohibitions that once existed in law, if not in practice. There is no ideally "pure" English state against which to compare.

The temptation still exists to return to the original idea rejected earlier -- subtract the per-pupil costs of one language group from the other. Two cases illustrate the hazards of equating the result with "added costs of teaching in French". One case would be that in which the Anglophone enrolment was concentrated primarily in an urban area and the Francophone enrolment was mainly rural, spread over large distances; one might imagine the case where it would be necessary to have somewhat smaller schools, fewer pupils per teacher and higher transportation costs to deal with the Francophone enrolment. Assuming one could control for a host of other factors, subtracting one per-pupil cost average from another in the example would reveal the added cost of providing instruction in a rural area: the cost differential would remain the same whether the instruction were given in French or in English. The second case is slightly different: Suppose one has a large rural district with a population approximately half Anglophone and half Francophone, distributed more or less evenly across the district. Local conditions dictate that the Anglophone and Francophone schools (supposing a set of purely unilingual schools) should be somewhat smaller than otherwise would be the case, with the same problems of teacher-pupil ratio and transportation costs mentioned in the previous example. The average cost of both French language and English language instruction has been raised by the mix of population; the costs of each, let us assume, are roughly equal -- therefore subtracting one per-pupil average from the other would hide the fact that both cost averages were increased by the bilingual situation. If sufficient controls were built in, one might compare the costs in each case with provincial averages in purely unilingual boards; this would show an "added cost". But, it requires making an unacceptable assumption to go the extra step of calling this the added cost of teaching in French -- the assumption is that English is the norm against which all else should be compared. In the example, one can imagine two hypothetical -- but totally unrealistic -- situations in which either French or English was the sole language of instruction; therefore the added cost could be either added cost of French or of English.

The problems of logic and basic assumptions referred to in all the examples are removed if one accepts that there may be an "added cost" of teaching a linguistically mixed population. However, the concept of added cost requires also that, for any given situation, there should exist a basic norm which can be subtracted to provide the added cost. The range of different situations in Ontario makes it unlikely that any simple norm can be derived that would not incorporate educationally or politically untenable assumptions. Therefore, we propose that in referring to costs of existing services one should refer to the "differential costs of teaching a linguistically mixed population in two languages".

3.2.2. Context of creating new services or expanding existing ones

The concept of "added costs" is easy to understand in a situation where a new service is being created, even if estimating those costs before they occur is subject to a margin of error. This would apply both to the expansion of services at the level of regional offices of the Ministry of Education and to the extension of existing services in boards of education -- providing more consultant and para-professional assistance, creating new classes or schools in response to the application of Part XI of The Education Act, 1974, and so on. For the purposes of this study we propose that the term "added costs" should refer to specific cases where a policy change has occurred or is contemplated leading to the provision of additional services beyond those previously existing. For analytical purposes, these costs can be divided into two types: (1) added cost of initiating a new service (planning costs, special recruitment costs, renovation and building costs, etc.) and (2) added cost of continuing operations after start-up.

3.2.3. Context of resource inputs

In both of the previous contexts, existing services and creation of new services, the possibility exists that some specific resource consistently costs more for one language group than for another. One example that might be cited is the possibility that the average cost of textbooks is higher for French language editions suited to the Ontario curriculum than for English language editions. Similarly, because of turnover patterns among teacher staff, or differences in average level of certification, the average teacher wage might be higher or lower. We propose that the term "higher (or lower) factor costs" should be applied to cases where a specific resource input used for instruction of one language group shows a consistent pattern of differentially higher (or lower) cost. When discussing such "higher factor costs", it is important not to overlook the fact that such higher or lower costs may be associated with a different level (quality) of service. For example, it is possible that an "imported" French language book might cost more than an average English language textbook but that it might be poorly adapted to teaching needs in Ontario and therefore result in a higher cost for a lower level of service. Similar types of considerations must be taken into account when generalizing about the service rendered by teachers. Present wage scales assume that an experienced, well-qualified teacher provides a better "quality" of instruction than one with no experience and fewer qualifications; if consistent differences were to appear in these dimensions, this might affect costs but also level of service.

3.3 LINKING COSTS TO SERVICES AND ASPIRATIONS

3.3.1. School-level cost data

The most fundamental decision about gathering cost data concerned the level of aggregation to be used. The simplest method would have been to use the financial accounts of each board, dividing all funds between French and English services to generate a two-column set of accounts for the whole board. The difficulty of this approach was that it would then be difficult, from such summary data, to derive indications of what was "bought" for those costs: that is, what services the expenditures provided and how those services varied as a function of cost. It also appeared very likely that aggregated data would not reveal cost differentials which are already built into public policies: For example, the special grant factor which provides money for French-English composite secondary schools of a small size, mentioned above (I:1.2), was set up in response to specific arguments that, if those schools were to be operated at a reasonably high level of service, significant additional costs would be incurred. Aggregated data at the level of a school board simply would provide no information on the actual costs associated with operating such schools.

The approach chosen was to break down all costs to the school level. In other words, this implied going through the accounts of the board to find out the exact cost of each teacher's salary, determining the language in which the teacher taught (or the proportion of teaching in a language), the school in which the teaching occurred, and adding the salary to the instructional salaries total. This would have to be done not only for teachers' salaries but for every item of expenditure. In fact, the first-level breakdowns resulting from our analyses eventually showed more than twenty separate sub-totals for

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each school in the sample, the sub-totals being based in turn upon pages of disaggregated data for each school. In other words, because of the decision to collect the data at the school level, months of work were required for each of the eleven boards in our sample. For none of the boards selected for study had an accounting system intended to provide school-level reports of expenditure

It is perhaps important to note one point: Although months of work are necessary to analyse an existing accounting system geared to other concerns, it is possible to obtain the same data at little or no cost, provided the school board accounting system has originally been designed to handle data at this level. We were informed that at least one board having French language instructional units did carry such types of data, organized by school, as part of its general accounting system. However, during the period of the study, the board was actively involved in front-page debates related to the issue of French language education and it seemed that, even if permission had been sought and obtained to carry out the research, the necessary conditions probably would not exist for fruitful research on many points. For this reason, no attempt was made to contact or study the board.

The drawbacks of this approach were double: First, it imposed an extremely high cost on the data collection in terms of time expenditure. Secondly, by providing data at the school level, it would be possible (after publication of the report) for uninformed persons to examine the school data and, independently of our analyses and conclusions, to misinterpret them at their own pleasure. Such misinterpretations are always possible for any research, particularly on a controversial topic. On the other hand, failing to provide school-level data based upon the best expertise we could muster appeared to be unacceptable, for the debate would go on anyway in the absence of reliable information. The risk of misinterpretation in the presence of data appeared less than the risk of misinterpretation in the absence of data.

The advantages of school-level data were obvious: It would be possible to make comparisons between boards, to examine actual allocation results to compare them with the intended objectives of allocation and -- above all -- to examine services in different schools to determine their relationship to costs.

3.3.2. Services and aspirations

Later in this report we shall enter into the problem of defining the concept "service level" in more detail, particularly as it applies to educational services for a minority language group. For the time being, most readers can trust their intuition when we speak of services in the context of the school system. For example, having one teacher for every twenty students in a school is a higher level of service than having one teacher for every forty students. Similarly, if one French language classroom carries on its work using French language textbooks and another is forced to use English language textbooks, then the second would be giving a lower level of service as regards furnishing French textbooks.

The research problem required that consideration be given to the level of services provided to Francophones for two reasons: First, it appeared the only way of interpreting cost data meaningfully. Secondly, since it was intended to consider the costs of additional services beyond those already existing, it was necessary to define what new services would be required.

On the surface, the first objective of gathering service data appears the simpler. In general, one can concentrate on those elements of service which appear to be related to differential costs -- for example, pupil:teacher ratio. However, when one measures "service" in terms which are directly related to costs, a curious situation results: All the measures of service become defined in terms of resources made available, and one has simply replaced dollars by another way of measuring resources. One has to go farther and consider qualitative factors affecting the user of the service. In turn, if the user is to be considered, then the question of service involves finding out the aspirations of the users , what services they wish to have.

Our approach to this problem has been to consider the question of service level as a sort of logical "bridge" between the costs of education and the needs and desires of the parents and children who are the "clients" of the educational system. We have gathered both cost data and information on aspirations of the Franco-Ontarian population; confronting the two has led us to define different types of services which must be dealt with; some are important because they explain cost differences, some because they are considered significant by the users of the system.

The results of such an approach are highly significant when one begins comparing different educational system approaches. Perhaps a simple logic table can show the links between services and costs in two systems (school A and school B, or school boards A and B):

a) The costs of A are higher than those of B; the service level in A is higher than B.
In this case, the service level "explains" the difference. "It costs more to do more."

b) The costs of A are higher than those of B; the service level in A is equal to that of B.
In this case, the service level shows that A is using more resources to do the same job; A is less efficient in doing the job. "It costs more to do the same thing."

c) The costs of A are equal to those of B; the service level in A is higher than that of B.
In this case the service level shows that A is more efficient than B. "For the same price, more is accomplished."

This is a logic table, not an analysis of a real school system. Every situation has a thousand confounding factors, many of which are impossible to assess by usual research methods. Nevertheless, it serves as an illustration of the type of response one is looking for in comparing services and costs at the same time. In an ideal situation, one would like to find clear cases which would assist in policy decisions. Such a clear case might be one in which it can be shown that it is cheaper to give the population a new service they desire than to continue giving them an existing service they do not want. We did not enter into the study with any expectation of finding such clarity but the general need for examining service levels appeared unmistakable.

Our approach to the question of aspirations among the Franco-Ontarian population has been determined by the desire to avoid duplicating the research of others, concentrating resources on the problems where our work might be of value. An extensive body of research on Franco-Ontarian aspirations already exists, carried out both by researchers and by governmental commissions studying the educational problems that confront them. Shortly before undertaking this research, the principal investigator agreed to write a general review of recent research on the educational problems of Franco-Ontarians. It was completed very early during the period in which this research project was carried out and served as a useful guide for the research literature (Churchill, 1976a). However, since additional viewpoints were necessary, three special studies were undertaken. One, by Mr. Normand Frenette, was a review of essentially the same literature, but with special emphasis on the question of aspirations. A second, by Dr. Raymond Lamerand, Associate Investigator on this project, dealt with aspirations in the light of recent expressions of opinion by Franco-Ontarian organizations. A final study examined the files of the Languages of Instruction Commission of Ontario to examine cost factors as they related to demands put forward by Francophones in disputes mediated by the Commission.[6] During the course of our work we interviewed many Franco-Ontarian educators in a wide range of school boards concerning services which were available in their areas; their remarks on needs were systematically discussed and recorded.

This work was the basis for decisions on selection of service factors to be assessed in looking at the comparative data on school boards. Several working papers were prepared and, from them, interview schedules were successively refined for in-board studies.[7] Finally, preliminary analysis of our data revealed that the major evident problems requiring additional inputs concerned secondary schools. For this purpose, we designed an instrument which was sent to all secondary schools having French language instructional units (i.e., mixed secondary schools and unilingual French secondary schools) to determine concerns at that level for new services.

3.3.3. Interpreting cost data

1. Differences between case studies and inter-board comparisons. The interpretation of cost data proceeds differently in the case studies than in this report on inter-board comparisons. Within the case study one is obliged, in a sense, to accept all the situational variables as they are defined by the persons providing the information. When a potentially "interesting" cost differential appears -- for example, between two schools -- the case study approach seeks out the "reason" for the cost differential in two stages: a) by identifying "what" the cost is -- such as an extra teacher or an allotment for a special library collection; b) by determining what decision-making circumstance resulted in this cost being where it is -- recognition of a special need, application of an approved allocation rule, an anomaly because of some human factor, etc. The "reason" is traceable to a concrete decision-making process involving certain individuals and their perceptions of situational factors such as available resources and educational needs. In making inter-board comparisons, concern has to focus on general trends and factors that appear to apply to multiple situations. The remarks in the rest of this section apply primarily to the comparative approach rather than the case studies.

2. Avoiding the logic of subtraction. In an earlier section we have outlined the logical pitfalls of using the approach in which the cost of one school might be subtracted from that of another to yield a cost difference attributable to instruction in the minority language. A second, related type of "subtraction" arises naturally in the course

of conducting case studies. On more than one occasion, in more than one board, our researchers have come across remarks of the following type: "If we did not have to teach in two languages, then we would need one less superintendent/one less special education teacher/five less teachers in the school", etc. In practice, we found such logic almost impracticable to apply to most situations in our study. For example, in examining carefully the timetable of secondary schools we found some cases where classes could have been recombined by eliminating one language; but we also found in the same schools that other, similar savings could frequently have been achieved by modifying other constraints on the timetable -- such as reducing the number of English language options slightly, tighter scheduling of teachers' time, accepting a greater number of conflicts for student preferences, etc. These constraints tended to vary from school to school in any event, so that it would be difficult to establish a common set of ground rules applicable to all schools. We found similar potential for recombination of tasks of supervisory officials and other personnel. Given that school boards have different philosophies and styles of administration, it would be entirely possible to imagine situations where, with an altered organization, services in a unilingual school board would cost more than in one offering instruction in two languages, just as we found some unilingual schools costing significantly more than mixed schools.

Leaving the realm of logical problems, the subtraction approach suffered from two practical shortcomings affecting general credibility. First, it would be in the interest of most of the persons furnishing data to exaggerate the actual costs of teaching in French. (It was perceived (a) that our report might help influence governmental policy in the direction of higher subsidies and (b) that, on the other hand, if observers thought "too little" was being spent to further French language instruction, the boards involved might be seriously criticized.) Therefore, using such a research methodology would have introduced an almost automatic bias to influence the conclusions. Secondly, at the level of actual operations of boards, there is little to suggest that suppressing a service to "save money" actually might lead to savings; for example, eliminating the bilingual programs in one school might provide the opportunity to reduce costs, but there might be a board policy that the pupil:teacher ratios would remain virtually the same in all schools (this was the case in one or two instances). In other cases, total pupil:teacher ratios in some boards are a matter for collective agreement; suppressing the need for certain posts might strengthen the board's hand in negotiating a reduction in numbers of teachers, but the long-term outcome would remain a matter of conjecture.

There did exist, however, one type of case which appeared to justify the use of the "if we did not teach two languages" approach; this occurred when, as a result of a recent change in policy of practice, a new service had been added and the additional costs were still clearly identifiable. The cases fall into the category of "added costs" in the sense defined earlier. (I.3.2.2.) One such case will be dealt with later in this report as a prototype of specific cost situations where other logic fails to provide the means for an adequate interpretation.

3. Comparing similar types of schools: The collection of school-level data on costs makes it possible to do comparisons between similar types of schools -- e.g., small, rural elementary schools. Given a sufficient sample of schools, one can determine if there are any

significant trends in the data. This approach can be used both between boards and, to a certain extent, within boards. Its utility is limited in a sample of the size dealt with in the present study, though some general trends are discernible.

The underlying logic behind use of school-level data in this way is related to the process of resource allocation between the province and school boards, and between school boards and the schools. Although allowances are made for local board conditions, the fact that the provincial grant weighting system starts with across-the-board per-pupil costs for elementary and secondary grants has a levelling effect between boards. Still, since special grants are made for French language instruction, one might expect that they would be reflected to some extent in increased costs in relevant schools. A second levelling effect may exist within boards. In all boards an effort is made to provide resources to schools in relation to needs. Differences arise because different methods are used to assess needs -- varying from weighting factors similar to those used at the provincial level to the detailed study of individual line items of school budgets.

The implications of these situational factors for interpretation are as follows:

a) Between-school variations in costs can be taken to reflect two sets of factors which tend to cancel each other out:
   - the levelling influences of board (and provincial) allocation policies;
   - differences in "need" resulting from different types of schools, different clienteles, and so forth.

b) Failure to detect a general trend in the cost data reflecting the provincial funding patterns favouring minority language instruction would be significant at the level of the entire study. The interpretation for each individual board would depend upon a situation assessment based upon data such as that available in the case studies. In other words, it is possible to make some generalizations about the group of boards as a whole, but not about any individual one.

The most powerful types of interpretations are possible where service data can be brought to bear in conjunction with costs. For the comparative study, this has been primarily relevant for studying mixed secondary schools in comparison with other types of secondary schools.

4. Studying allocation procedures. Our examination of preliminary data during the study revealed that adequate interpretation would not be possible without further attention to specifics of decision-making concerning cost allocations to schools. By means of a series of interviews with school board personnel, combined with a questionnaire for Directors of Education, we attempted to sketch the major types of decision-making patterns. The purpose was not to enter into the details of any specific decision, nor was it to pass judgment on any method used. Rather, it was simply to find out why certain expenditure patterns were found in the data.

5. Geographical and historical factors. In many cases the only source for interpreting costs is to be found in specifics of history

in different locales. In general, both in this comparative study and in the case studies, we have avoided the anecdotal approach of providing large amounts of past history. At most, in discussing certain cases of "added costs", we have attempted to use history as an explanatory factor.

In studying the general implications of our research, it became clear that historical evolution plays a major rôle in making the "added costs" of new services "disappear" in a short period of time. This factor, more than any other, explains both the difficulty of interpreting costs and the source of many controversies surrounding present grant schemes for favouring minority language education. But that is another chapter.

3.3.4. Costs related to new school creations.

The study of new schools created under Part XI, The Education Act, 1974, has been based almost wholly upon a case study approach, using simple interview techniques and cost data provided by the school boards. Although it was originally our intention to deal with only two schools, it was decided in the course of research that a broader base was required. Schools have been studied in several boards distributed in an arc around the city of Hamilton. The purpose of this was to give a complete picture of elementary schools which have been created in a geographic region of very low Francophone population density, sharing important common problems and, by coincidence, located within travelling distance of the new French language high school in Hamilton. The nature of the subject lends itself more properly to the case study approach, each school being in many respects a special case in its own right. For this reason, this portion of the research is described in a separate report.[8]

4. SUB-PROJECTS AND REPORTING FORMATS

4.1 SUB-PROJECT ORGANIZATION

The complexity of the study dictated that the work be broken into segments, to be carried out independently. The following represents a partial outline of how tasks were subdivided:

a) Cost data gathering: involving the analysis of financial accounts for all boards in the sample, the preparation of school-level breakdowns of costs and board summaries. This required a minimum of two, and usually several, visits to each board, interspersed with analytical activity in Toronto.

b) Aspirations background: involving the preparation of background papers on Franco-Ontarian aspirations.

c) Service instruments development: involving the elaboration of the concept of service, preparation of interview schedules and their refinement.

d) Secondary school service needs survey: involving the preparation, piloting and revision of a survey instrument; sending out, receiving and analysing a questionnaire addressed to the French-speaking principal or vice-principal (or most senior Francophone staff member) of all mixed and French language secondary schools in the province, and preparation of a summary report for distribution to respondents.

e) Board case studies: involving the intensive interviewing of central-level staff in eleven boards, as well as the interviewing of all principals of mixed or unilingual French language secondary schools; the summarizing of interview data; and the preparation of individual case study reports on the boards.

f) New school creation case studies: involving interviews with senior board officials in four school boards in which new schools were created in line with provisions of Part XI, The Education Act, 1974; summarizing the data, writing case studies and doing an analytical comparative survey.

g) Comparative service levels analysis: involving the use of sources such as the Principals' September Report to derive key indicators of service level and provide descriptive data on the boards and schools in the sample, correcting the data in the light of on-site verification during the case studies, preparing tables, and providing interpretations of service indicators.

h) Preparation of the comparative report: involving the assimilation of data from all relevant sub-studies to provide a general summary report of comparative findings, particularly those potentially relevant for major policy considerations.

i) Bibliography: involving the compilation of diverse bibliographic sources relating to all phases of the study.

4.2 REPORTING ORGANIZATION

The organization of reports is intended to serve two purposes: firstly, to provide major summary data for consideration in a general comparative report; secondly, to provide detailed data for special audiences. Given the large volume of data involved, it was decided to publish only the final report for large-scale dissemination:

a) Costs: French Language Instructional Units - An In-Depth Study of Selected School Boards (Prepared in English and French versions)

Two other documents are available in xerox form, at cost, upon application in writing to the principal investigators:

b) Educational Services for Franco-Ontarians: Aspirations and Models of Service (Complementary Study Reports I)
(Includes background papers on aspirations, analysis of cost factors in disputes mediated by the Languages of Instruction Commission, report of the opinion survey among secondary school principals on needed services.) (Prepared in French version)

c) Educational Services for Franco-Ontarians: Case Studies of Costs and Services in Newly Created Schools in Southern Ontario (Complementary Study Reports II)
(Prepared in English version)

For archival purposes and to communicate with participating boards, documents of a confidential nature were prepared and are held by the principal investigators:

d) Educational Services for Franco-Ontarians: Case Studies of Costs and Services in Selected Ontario School Boards
(Complementary Study Reports III)
(Depending on the school board, prepared in English and French)

The following are available for consultation by other researchers:

e) Educational Services for Franco-Ontarians: Working Papers, Documentation and Instruments (Complementary Study Reports IV)
(Documents in original version of preparation)

It is not intended that (e) be published or otherwise disseminated. The studies in (d) contain certain information which renders it necessary to maintain them confidential with circulation of each report limited to the board studied.

FOOTNOTES TO SECTION I

1. In reality, the study dealt with seven school boards -- three Roman Catholic separate school boards and four public school boards. Each of the public school boards administers both elementary and secondary schools, and is obliged to maintain separate financial accounts for the two levels. As a result, it has been necessary throughout this study to deal with each level of a public board as a separate financial entity. In all references to such boards, therefore, the elementary and secondary levels are treated separately and referred to as such. This gives, then: three separate elementary school boards, four public elementary school boards and four public secondary school boards, for a total of eleven.
2. In accordance with usual Ontario practice, we shall refer to subjects by their French name whenever they are taught in French.
3. Table 4.51, Education Statistics Ontario, 1975.
4. Commission ministérielle sur l'éducation secondaire en langue française/Ministerial Commission on French Language Secondary Education, 1972.
5. The development of French language schools is discussed in greater detail in a recent article by the principal investigator (Churchill, 1976a); see also Rideout, 1977.
6. See Section I.4.2 for reporting organization. The study is in Educational Services for Franco-Ontarians: Aspirations and Models of Service (Complementary Study Reports I).
7. Cf. various working papers by M. Gill and S. Churchill in Educational Services for Franco-Ontarians: Working Papers, Documentation and Instruments (Complementary Study Reports IV).

8. Cf. *Educational Services for Franco-Ontarians: Case Studies of Costs and Services in Newly Created Schools* (Complementary Study Reports II).

SECTION II: DEVELOPING THE FRAMEWORK FOR DATA COLLECTION AND ANALYSIS

In a study of an unexplored problem area, such as the present one, the framework for data collection and analysis is created progressively through an interactive process. Its final statement should incorporate a complete definition of the research problem. This statement constitutes a research result as much as the analysis of data and the drawing of conclusions. Sub-section 2, below, presents the major theoretical statement resulting from our research.

1. OVERVIEW OF THE PROBLEMS TO BE SOLVED

As stated earlier, the case study approach appeared justified by the difficulty of applying more standard approaches. The difficulties began with the lack of literature directly on the topic. Sources dealt with a host of related matters such as general cost models in education, pedagogical and political problems of bilingual education, and even costs of teaching a second language.[1] But none treated a problem remotely similar to explicating cost relationships of a minority language education sub-system within a majority language educational system.

Still, adopting the case study approach cannot, and should not, be used as an excuse for lack of proper method.[2] All the steps normally taken in other types of empirical research are still necessary but an interactive approach replaces the sequential one: Hypotheses are generated, data are gathered and analysed and -- instead of a concluding analysis to test hypotheses -- the results are used to refine the hypotheses. Because the number of cases studied rarely permits standard statistical analysis, the case study serves primarily to refine hypotheses, to explicate problems and to pilot test approaches that may be used in larger scale research. The conclusions are seldom definitive. They frequently take the form of "models" showing how factors in the problem may interact, and the most definitive conclusions are usually preceded by more than the usual amount of precautionary words to show doubt. The best case studies are those which raise more problems than they answer by throwing open details of problem areas where little is known. The following is an overview of how the problem was tackled in this study.

Selecting the main samples to study was perhaps the easiest part of the problem. After background research on population densities and school board size, discussions with Ministry of Education officials in the early spring of 1976 resulted in selection of a "sample" of boards in three separate areas, two in northern Ontario and one in the south. (The description of the characteristics of these boards, taken into account in selecting them, is given later in the presentation of the data gathered.) In the late autumn, when preliminary analysis of the data from these boards revealed the necessity of further data collection to verify preliminary hypotheses and trends, a decision was taken to extend the data collection to one further area, this time chosen from the south. The criteria used for selection were intended to ensure variety in geographic location, population density and population distribution between the two language groups; the absence of major language-related conflicts at the present time in school board affairs was also considered a useful attribute. The choice of schools for study in the section dealing with new schools was almost "imposed" by circumstances: The bulk of the new schools had been created in one region stretching west from Toronto; contiguous boards were then chosen for study. Owing to the anomalous characteristics of the metropolitan area itself, the sample did not extend east beyond Hamilton.

The cooperation of authorities in one of the initial boards chosen made it possible to proceed in a truly interactive fashion with all succeeding work: New ideas were initially tried out in the board, then the conclusions drawn and the procedures revised before proceeding further afield. If important changes in method were made, a second approach was made so that data gathered there would be compatible with that from the other boards. We are particularly grateful for the many hours of patient assistance provided in this way by the board staff.

The main areas of data collection to be considered were: (a) aspirations of Franco-Ontarians for educational services: (b) services available (current service levels); (c) costs of existing services. In the previous section (I:3.3.2) the discussion of the relationship between services and aspirations outlined the major steps in data collection related to aspirations: careful review of written sources, interviews and a focussed questionnaire on service preferences circulated to secondary schools. The questionnaire development involved the lengthy preparation of trial versions, their piloting and revision, prior to carrying out the actual study. This development, though including some original problems related to the nature of services in a bilingual educational setting, was essentially "classical"; the use of inputs derived from our school board interviews as a means for selecting items and critiquing them conforms to the canons of survey research. For this reason, the detailed discussion of methods is left to the report on the survey.[3]

The remainder of this section will deal with data collection related to the costs of services and the existing levels of service in boards. As with any other type of empirical study, our first requirement was to "define the research problem in researchable terms by explicitly stating hypotheses". However, this could only be done by preliminary data gathering. Several cycles of definition and tryout were required before arriving at a satisfactory basis for work. The outputs of this activity consisted of a general theoretical statement of the problem of costing services, a set of data gathering procedures and a more limited framework useful for the present comparative analysis of costs. Because of its potential contribution to the understanding of service problems, a major sub-section is dedicated to outlining the general theoretical issues related to studying educational services in a bilingual environment. A further sub-section describes in brief summary the data gathering procedures followed. The framework for comparative cost analysis is described in Section III.

2. A GENERAL THEORETICAL FRAMEWORK FOR COSTING EDUCATIONAL SERVICES FOR A LANGUAGE MINORITY

2.1 ASSUMPTIONS

Most of the research literature on educational costs avoids definitions of "education" or "educational services". It is far too easy to appeal to common sense: A school costs so much to build, a teacher's salary is a certain amount per year, and the budget for textbooks has been fixed at so many dollars per pupil. Most cost studies need go no further, because the concept of service is an abstraction unrelated to the specific research problem. The introduction of "cost-efficiency" and "cost-benefit" analysis as an aid to decision-making has resulted in considerable rethinking of what it is that education is intended to do. However, the quality of the results of such techniques depends far more upon the skill of the persons applying them than upon any a priori set of techniques for defining what "efficiencies" or "benefits" the costs are related to. We have found no cases where such "benefits" have been systematically analysed in a framework suitable for transposition to the problem of minority language education in Ontario.

The inadequacy for our problem of most of the present literature on costs results from the underlying assumptions of the authors. All too often they assume that there is a single set of values, shared by all members of society, which the educational system is supposed to foster. Let us take a simple example of the common sense referred to earlier: A teacher's salary is a certain amount per year; therefore the cost of providing an educational service for a classroom of pupils in a primary school might be the salary of the given teacher, augmented by all relevant overheads -- building costs, textbooks, etc. Nothing could be more obvious. Except that, if the children are from a minority group who do not speak the language of the teacher, it may be that no educational service is being given. In fact, if the teacher is inculcating them with a contempt for their own culture, a sense of personal inadequacy, and a general fright of all things educational -- then a disservice is occurring. In practice, almost all costing studies ignore such fundamental problems because they are applied in environments where the educational disservice can be hidden: The minority language pupils are usually being educated in a larger educational system which is implicitly based on the value assumptions of the majority language group, including the idea that the goal of the minority is to be like the majority. Providing a teacher in a classroom can then be equated simply with providing a service, and all the rest then falls logically into place. Failure of certain pupils to benefit is simply "inefficiency" in the system.

Our assumptions begin with a contrary view, one which is common to public policy, to greater or lesser extent, in several Canadian provinces: The objective of the system is to provide the right for the minority and majority official language groups to coexist on an enduring basis, with each conserving and developing those elements of its culture that it values. In many cases, policy and practice are very imperfect in facing up to this challenge; ringing declarations of principle sometimes are not put into effect; and the public (both minority and majority language groups) is torn by differing degrees of understanding of the issues and by different opinions on them. Still, the fact that the publicly supported educational system in Ontario explicitly provides for instruction in the two languages authorizes us to proceed with the assumption stated above. Once it is accepted, the whole question of costing educational services must be rethought.

Our approach to rethinking the concept of service in relation to minority language education has been eclectic. The goal was to provide the basis for describing the content and assessing the costs, within a complex educational system, of the different services provided for two language groups receiving instruction in a wide variety of environments. With the goal in mind, we have confronted theory with fact, conceptual model with research tasks, eliminating many irrelevant leads and conserving that which served the purpose. Instead of retracing the many steps taken in the search, we shall try to explain the general lines of thought that have resulted. The more abstract portions of this explanation are generally applicable to many types of educational services in different places. However, in order to make them understandable, as many examples as possible are taken from the reality of everyday educational problems in Franco-Ontarian schools and classrooms.

2.2 TERMINOLOGY RELATED TO THE CONCEPT OF SERVICE

2.2.1 Elements of a service transaction

Dictionary definitions are of little utility in approaching a problem where few persons are likely to agree on specific wordings. We have to accept the fact that "service" is a widely-used word with numerous acceptations, none of which our readers can be expected to give up in favour of our viewpoint. We are dealing with a large semantic field and our objective will be simply to provide a series of indications of what it's dimensions are and to show how they relate to each other in general terms. From them we will select a few which are useful to our work.

Service, according to the dictionary, is an act of serving. Someone (or something) is the beneficiary or user of the service, and it may be assumed that there is some intended benefit. In short, we are dealing with an event or series of events intended to benefit someone.

Let us now look at the "service event" or "service transaction" to see in simple, logical terms what are its minimum components: A user or beneficiary, a transaction or event constituting the service proper, a resource used to cause the event to happen. Resource? Yes; some object is provided or some human effort, however minimal, is expended in order for the service to occur. A "service" is, then, the use of resources for the intended good of a user (beneficiary). Common use of the term "service" also implies that the resource must be furnished by someone other than the user -- by an individual, a group of persons, or by some entity such as the state or one of its agencies. A person who plants a tree, waters it and eventually picks the fruit, is not receiving a service in any usual sense; a person who receives regular gifts of fruit from a friend in the country is receiving a service. There is always someone other than the user whose decision makes the service be provided -- a provider of service. Two cases should be distinguished:

a) If a person provides his own work as a service by his own decision to enter into a service relationship with the user, then the provider and the resource are the same: This is the case of the free artisan, like the plumber who operates an on-call service, or the domestic servant who works in a house. In fact, anyone who enters into a transaction to provide his own labour (including intellectual effort) is engaged in a service transaction and the resource used is synonymous with the provider.

b) The second case occurs when the decision to provide a service to a user resides somewhere other than in the human resource involved in the transaction. For example, in general terms, education at the elementary school level in Ontario involves school boards in providing services to children and their families. Viewed in this sense, the provider of the service is the school board, and the teachers are therefore the resources used in the service transaction. (In this case, a further service relationship is implied: The teachers have agreed with the school board to carry out certain duties in classrooms; they are providers of this service to the school board.)

Common vocabulary also introduces further questions: A service is sometimes viewed as a gratuitous act of human generosity; at other times, services are paid for, in the sense that one pays for a haircut. In general, we will consider both to be services. Public schools are frequently viewed ambiguously from the point of view of cost: The user tends to view them in one sense as a "free" public service and a right; on the other hand, the same user often participates in paying for the costs through taxes. The financial content of the transaction is hidden by the intervention of the state and the natural tendency to overlook costs which are not paid at the moment of consumption. (Differential rates of taxation also play a rôle.) A second question arises from the specialized vocabulary of economics, in which some transactions involve transfer of "services" as opposed to transfer of "goods", the first indicating activities in which human effort is dominant; this legitimate distinction is useful in some contexts. However, in the present study we shall not make a distinction between physical goods and human services in discussing costs of educational services. For example, providing the service of classroom instruction includes the use of the building as well as the time of the teacher.

A re-examination of the elements of the service transaction indicated above reveals two subsidiary, but extremely relevant, points: First, services are not always rendered directly. A child may benefit directly from the services of a good teacher, but the teacher's effectiveness may depend partially upon, for example, access to a good library. Thus, the child benefits indirectly from the library used by the teacher. Similarly, the benefits accrue not only to the child but also to his or her family. As a consequence, we should be wary of limiting the concept of service to the single educational happening which is most obvious. Looking at the child receiving instruction from a teacher, in the example, we can refer to the teaching as a primary service and the child as the primary user; from the point of view of the child, the library and its use by the teacher constitutes a secondary service in relation to the primary service of teaching; the child's family is the secondary beneficiary or user of the teaching service. It should be noted about this example that the terms "primary" and "secondary" are simply convenient labels attached for the purposes of analysis. If the main purpose is to examine services used by teachers, then the use of library facilities would be a primary service, and the chain of analysis might lead back to a secondary service in the form of an interlibrary lending service, or whatever. At this point, we are merely pointing out general concepts. When the time comes to apply these concepts to our specific study, an exact set of referents will be established for consistent use.

A second major conceptual point is the fact that services are not always visible or obvious: The public generally benefits from the fact that criminal acts are relatively rare compared to what they would be if there were no police or judicial systems; thus, the absence of an unwanted happening is possibly as much an indication of service as the presence of a desired happening. In the study, we shall not try to assess or describe classes of educational services that are only to be characterized in terms of the absence of negative effects resulting from their presence. Instead, where such preventive services exist, they are ordinarily noted because they are an integral part of the educational system. For example, diagnostic services to assist in detecting children in need of special pedagogical attention are studied because they are part of the system of education; general medical services in the community, required to ensure that relatively few persons suffer from physical disabilities affecting learning, are not considered, because they are outside the educational system as commonly understood.

To recapitulate, we have defined the general parameters of what has been termed a "service transaction":

a) The elements of a service transaction are: beneficiary or user, service transaction, resource, provider.

b) A service (or service transaction) is the use of resources for the intended good of a beneficiary.

c) Services may be paid for or be given free.

d) Services are not always visible and may consist of the prevention of negative effects.

In addition, we have noted a few points for future reference in the study:

a) The distinction between "goods" and "services" will not be used when speaking of the costs of educational services, which may include both.

b) In certain contexts it is useful to distinguish between primary and secondary services, users and providers.

2.2.2. Service, need and demand

Most public debates on governmental services are characterized by extreme semantic confusion engendered by the multiple meanings of three terms: service, need, demand. Each of the words has acquired a multiplicity of meanings, all of which are certainly valid. Participants in debates frequently are driven to the point of exasperation by the inability of others to understand what they mean by "need" or "service". We cannot pretend to resolve these contradictions; at best, for the limited purpose of our study, we shall have to define some specific types of services, needs and demands, illustrating them with concrete examples taken from school situations.

1. Dimensions of service. Three commonplace expressions provide a useful starting point: "The service exists, but nobody uses it." "We give the service, but I don't know what difference it makes." "I would like to use the service, but there is no way to get there before they close." All three statements have a common theme: A service is acknowledged to exist but, somehow, it does not reach or affect the user. In a word, services are characterized by availability, accessibility and effect.

Availability refers to the fact that a service exists potentially, provided a user wishes to use it. For example, a free course in child care is offered at a community centre; it is available to persons who wish to register and attend. There are examples, however, of educational services which are theoretically available but not "truly" available. In mixed secondary schools, many grade 13 subjects are theoretically available in French as well as English, "provided enough students request them"; a community library has almost all its holdings in English but would be willing to order French books if there were enough French readers; in any school board operating English language elementary schools, if a sufficient number of parents request it, French language classes or schools must be set up under the terms of Part XI, The Education Act, 1974. These different services are legally or theoretically available, subject to proof of user need.

The implications of the concept of "proof of need" are clear if one compares the previous situations with another series of examples: In a given high school, 16 pupils are registered for a grade 13 course in science taught in French; a seventeenth pupil who wishes to switch courses and join the class in early September of the school year would ordinarily be allowed to enter without problem. A given library has a small collection of French language books which are regularly used; as a result, analysis of user demand suggests that it would be wise to expand the French language holdings over a period of time. A French language elementary school has been operating for some years in a given school board; the French-speaking parents of a small child decide to register him or her in the first grade of the French language school. In these cases, it suffices for the user to express a desire for a service in order to have access to it.

If one contrasts the two sets of examples, a clear distinction arises between theoretical availability and operationalized availability. In one case, the test of need is simply that the user express an individual wish; in the second case, a preliminary assessment of need must be made for a whole class of users prior to the decision to make the service operationally available. Theoretically available services are frequently hard to convert into operationally available ones: Until the service is offered, demand cannot be built up in the form of a regular clientele for a service; however, the offer of service is conditional upon the demonstration that a clientele exists. This type of reasoning is very commonplace where the service requires what might be called a "unitary resource increment": opening a new section of a library, building a school, hiring a new teacher and so forth. The provider of the service requires a proof of sufficient usage of the service in order to avoid taking the risk of making an unjustified investment. From the point of view of the provider, this amounts to a sound principle of administration: Do not waste money on services that are not used. For the potential users the obstacle may be difficult to overcome sufficiently so that even the will to have the service is diminished. A survey of potential users of a service -- particularly where the service has never existed before -- may reflect this lowered level of will and seriously underestimate real potential usage. This point is important to remember in dealing with studies of demand, to which we shall return momentarily.

The accessibility of a service is determined by the viewpoint of the individual user. Although frequently applied only to mean geographic accessibility (a library in North Bay might be inaccessible to a potential user in Kapuskasing), the term is more broadly used to indicate the degree of effort, cost or inconvenience involved in obtaining a service. The usage of a service will depend upon each individual's perception of accessibility, a perception which may be affected by a multitude of factors. Some of the key factors related to utilization of minority language educational services are the following:

a) The geographical proximity of the service: Franco-Ontarians may be faced with a choice of schools such as an English high school almost next door, a mixed secondary school at a walking distance, and a unilingual French high school to which access is only possible by bus. Persons living in low density areas may be faced with the necessity of providing their own transportation for long distances in order to reach a suitable French language instructional environment.

b) Personal effort required to use the service: The problems of transportation just mentioned are obviously related to effort. Many other personal choices, though less obvious, involve tradeoffs in effort. For example, the student in a mixed high school entering Grade 12 may discover that the available French language options are strictly limited to so-called "core" academic subjects with a reputedly high difficulty level; the temptation may exist to select credits from courses with more "recreational" content, even though they are only offered in English. Continuing to use French in studies may be perceived as the way requiring the most effort, even if the student might otherwise wish to study in French.

c) Language used to obtain service: Mentioning language in this context is not a contradiction or a repetition. In large parts of the province many services associated with a French-language education, even if the basic classroom instruction occurs in French, are only available in English. For the child, this may mean simply that reference books are only available in English on topics of study; for the teacher it may mean that expert help in pedagogical matters is not easily obtainable within the same school or the same board, except in English from a person unaware of the needs of Francophone students; for the family it may result in a reticence to deal with school authorities to seek advice if everyone except the teacher is perceived as being Anglophone.

d) Costs associated with using a service: Although public education is ordinarily perceived as "free" and "compulsory", families incur numerous expenses in sending their children to school. Free instruction and textbooks have made education almost universally accessible up to the end of compulsory attendance, fixed in Ontario at age 16. However, the poorer the family, the more likely it is to feel the load of costs associated with education, particularly for children approaching the age when regular full-time work is possible (provided jobs exist). It is well-known that Franco-Ontarians have, by and large, lower incomes than average in the province,[4] so that the impact of costs can be expected to be greater for them than for the population as a whole. The crucial decisions occur in the later years of secondary school. If paid employment appears readily available for the young person, the choices are made doubly difficult.

In this respect, the situation of Franco-Ontarians is similar to that of other groups having the same lower socio-economic status. However, language differences affect them harder than others through the mechanism of expectations for continued study. Unless a Franco-Ontarian lives near a campus of Laurentian University or the University of Ottawa, continuing university education presents hard tradeoffs related to the personal difficulty involved: (i) The student can continue studying with a view to entering a French language university program; however, this will involve in most cases the added expense of living away from home. (ii) The student can continue studying in the hope of entering an English language university program near home; this will save money but imposes the burden of undertaking higher studies in a second language. (iii) The student can look at the double obstacle of either paying the high costs of living away from home or changing language of study, ponder the alternatives and just "opt out". Since young persons are frequently aware of these options early in life, their expectations affect course selection and even choice of school from the early secondary years onward.

e) Discouragement or encouragement from the environment: Under this heading one may group community and family expectations which encourage or discourage use of educational services. Such expectations affect individual choices for everyone in the population with respect to every type of public service. The differential impact on Franco-Ontarians results from the incidence of two historical factors: First, there is the general socio-economic pattern which, as noted, tends to put the Franco-Ontarian in a lower social position than the average in the province; the effects of this on stereotyping by educators, on streaming into vocational-type courses and on personal self-image for the child, are too well known to repeat in detail.[5] Secondly, there is a factor resulting from the evolving structure of the educational system. Because of the difficulty of transition from elementary study in French to secondary study in English, which was required in Ontario until the late 1960's (except for those attending private secondary schools), there exists in many communities a long tradition in which only a limited few Francophones are expected to pursue academic lines of study. The creation of mixed and, particularly, unilingual French secondary schools has reduced the difficulty of the transition from elementary to secondary, thereby opening up the way to higher study. Nevertheless, this historically significant change is so recent that the full effect on community and family attitudes has not yet occurred. In general, one would anticipate that the impact of such societal attitudes would be stronger in a mixed language environment than in a unilingual one. The effects of social pressures for differentiation by language are probably attenuated in an environment, such as a unilingual secondary school, where all students are perceived as being on an equal footing as regards membership in the Franco-Ontarian community. Since much attention has been given in the popular press to the possible effects of teacher attitudes (the so-called Pygmalion Effect), it is important to note that these social pressures do not necessarily come from teachers: They may simply come from interaction with society at large and with other students and -- most importantly -- may operate through the disadvantaged individual, shaping behaviours and expectations so as to lower scholastic performance in an "objective" sense. In other words, from this point of view, discrimination can occur in spite of policies of the school -- and the good will of teachers -- through the very persons suffering from the disadvantaged situation.

The effect of a service is a straightforward concept. A service may be used in the sense that the resources available are expended on the users; but there is no guarantee that this use will result in a benefit to the user. Students attend school for a certain number of days each year, but the amount learned varies considerably from individual to individual. Popular belief to the contrary, it is very rare that a service does not have an effect on the user. What people ordinarily mean when they say that a service (such as schooling) "makes no difference" is that the effects are not what were intended: Children in school may "learn" disruptive behaviours just as they learn arithmetic.

In short, the problem is the difference between intended effects and unintended effects. In most everyday discussions and debates, educational effects are thought of in terms of intended effects -- amount learned of an academic nature, self-discipline acquired, and so on. It is usually in the context of considering social disadvantage of specific groups that the issue of unintended effects is important: The sorts of social selection resulting from the action of educational processes are usually difficult to observe except for large numbers of individuals. To do so requires considerable amounts of accurately gathered data and, for the untrained, the results are difficult to grasp. Everyone can name an exceptional person from a disadvantaged group who succeeded in spite of all problems, and the discussion of unintended social impacts of education is rarely possible in an atmosphere where statistics and conclusions can be looked at dispassionately.

Measurement of effects, even intended ones, is a major stumbling-block to understanding the functioning of educational services. The great majority both of the public and of educators agree that the intended effects go beyond "simple" learning outcomes related to traditional subjects (the reading, writing and arithmetic refrain that recurs in every discussion) but there is little agreement on how to assess larger aims, such as developing "mature" attitudes or the like. The diversity of our society precludes unanimous agreement on objectives. Consequently, the measurement of outcomes is always subject to serious dispute. In passing, it may be noted that the measurement of learning in traditional areas of instruction is neither simple nor lacking in controversy. The problems are just overlooked.

With respect to the French language instructional system in Ontario, debates are frequently clouded by this type of absence of agreement on intended effects and misunderstanding of the unintended effects. A rather typical example of this has been documented in the recent thesis by Haché (1976) on the creation of the Ecole Secondaire Etienne Brûlé, a French language high school serving Metropolitan Toronto. Haché found that the project leading up to the creation was discussed for a period of time between members of the Franco-Ontarian community and representatives of the Metropolitan Toronto School Board without the two parties understanding clearly that there was a fundamental disagreement in aims: The school board representatives tended to view the objective as the creation of a "bilingual" school, adopting a general attitude that bilingualism was a means whereby young Anglophones and Francophones were brought together and thereby became bilingual. The Franco-Ontarian representatives considered that bilingualism involved maintaining a viable Francophone community in the face of overwhelming pressures towards anglicization; therefore, they were seeking a school reserved for Francophones where, through the medium of French language instruction, they would be able to develop in their own culture. Similar divergences have been at the root of many subsequent debates on the question of creating French language instructional units in Ontario. Many Anglophones view the mixed language school in terms of its intended effects -- developing bilingualism in those students who wish it by means of a mixture of populations in the same buildings; on the other hand, Francophones have maintained that the unintended effect of such mixtures was not the fostering of bilingualism but the suppression of the Francophones through progressive anglicization. Obviously these debates have included many other elements, and there has certainly been no unanimity on either side as regards objectives and effects. Still, these general tendencies do exist, and they illustrate well the problems of separating intended from unintended effects.

At this point it may be convenient to note that three dimensions of service have been discussed and articulated. Schematically, one may summarize as follows:

availability - theoretical availability - need defined by class of user
- operationalized availability - need defined by wish of individual user

accessibility - geographical proximity
- personal effort
- language used
- costs
- environment

effects - intended
- unintended

2. Need and demand. Beyond the bare physical minima required for existence, such as food and shelter, most human needs are societally conditioned. Education is no exception. As our society has grown more complex, the minimal levels of required education have been raised both formally through legislation requiring attendance until a certain age and informally through screening mechanisms that make it difficult to obtain a job unless a certain standard of education is reached. Persons perceive needs in the light of their own individual lives and of societal pressures. For the purposes of our study, it is important to note the difference between individually perceived needs and societally perceived needs. Some authors in the past have distinguished a hierarchy in needs, so that societally perceived needs were "objective" needs, whereas individually perceived needs were considered "subjective" and less important. Such a hierarchy does not appear to be justified in any deep logical sense but, for decisions on public services, the societally perceived need is that which our political and social institutions are intended to implement in practice. Thus, the range of courses offered to students in a secondary school is dependent upon a societal assessment of resources to be made available for teaching and upon a decision regarding what types of instruction are acceptable and "needed". The students' selection of courses is presumed to allow for differences in individually perceived need.

For the purposes of defining need in an educational environment, great weight is traditionally attached to the assessment of experts and professional educators. For centuries professional opinion tended to consider that people "needed" to know Latin. In the last half-century, progressive emphasis has been placed upon studies related to an understanding of society and of the individual's rôle within it. In the not too distant future it is not unlikely that an understanding of electronic computing may be considered fundamental for successful adult life. From this, it may be seen that societally defined need can vary over time, just as do individual perceptions of need. The two may coincide or diverge in a multiplicity of manners. Where a sufficient divergence exists, then one may note a "demand" for change.

Demand is an expression of need. With respect to services, it refers to user response to an existing service or one which may be offered. There are different types of demand, all relevant for the discussion of Franco-Ontarian education. Let us take a simple example of how a group of Francophone parents might set out to obtain the establishment of an elementary school under Part XI, *The Education Act, 1974*. After consulting with friends, they may draw up a request signed by their spokesmen, in which they indicate that thirty parents have agreed to request the establishment of elementary classes in the French language. This is what one would call *expressed demand*, defined as the act by which one or more persons request a service or the maintenance of a service. Expression of demand may vary from active advocacy of a cause to the mildest indication of interest in response to a questionnaire or telephone survey. Returning to the example, one may suppose that the parents will argue that at least 70 children of school age would be registered in the proposed elementary classes if the decision were made to create them. This is what one would call an estimate of potential demand, defined as the anticipated level of use of a service if the service were "free" to the user. If the school were created and a total of 65 pupils registered for it, then this figure would represent effective demand, defined as the level of use of a service, given the circumstances and costs actually encountered. The concept of cost in relation to potential and effective demand is introduced in order to account for those many situations where estimates are made of potential demand in the knowledge that obstacles will limit effective demand. An example would be an estimate of the number of French-language students who might attend the recently created French language high school in the city of Hamilton, provided that free bus service were available throughout the region; actual attendance is lower, since such bus service is not available and all parents cannot afford to pay the necessary transportation.

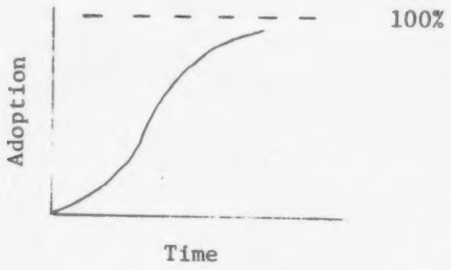
Perhaps one of the most difficult problems associated with estimates of demand is that of determining the meaning of responses to surveys and questionnaires about potential changes in services. In discussing the concept of availability of service, it was noted that when the members of a public are aware that a given service does not exist and that getting such a service created requires overcoming significant obstacles, the will of the persons concerned may be affected so that they will underestimate their own interest. This is particularly true of persons who, for example, are contacted for the first time regarding a topic about which there has been little public discussion. Similarly, in discussing accessibility, it was noted that young persons in high school assess their own situation and may adjust their expectations and performance accordingly. Although a few students may have the particular outlook making for militancy and a will to change social institutions, except in rare situations the majority of student choices are significantly affected by an assessment of what *is*, rather than what might be.

A few examples of recent research demonstrate the problems of making estimates of demand. For two successive years, under the patronage of the Conseil Consultatif des Affaires Franco-Ontariennes, the Ontario Ministry of Colleges and Universities has distributed questionnaires to French language students in Grades 12 and 13 to obtain estimates of their intended post-secondary study and their preferences regarding language of instruction (Bordeleau and Desjardins, 1976; Bordeleau and Gervais, 1976). Several questions in the questionnaire relate to language choice either directly or indirectly, and the responses always tend to favour a bilingual educational environment where courses would be followed in both English and French. The results are very similar to the results of a questionnaire distributed to Francophone parents in the early 1970's requesting their preferences for the language in which their children should be educated at the secondary level. The majority favoured bilingual schooling with a mixture of instruction in French and English (Comeau, 1971). It is difficult to extrapolate from this expression of preferences to determine the actual demand which would result following a change in the existing system: Ontario has no French language universities, but it does have two with major bilingual programs; this factor may strongly condition responses in students thinking of future choices.

The phrasing of questions significantly influences responses. Thus, the results of these studies may be contrasted with those of another research project carried out at almost exactly the same time, the Interface Project, concerning the transition between secondary and post-secondary studies in Ontario. In the latter study, a sample of Francophone students in Grades 12 and 13 were asked how their plans for future study or work would change if post-secondary institutions offered a full range of subjects in French. A significant proportion (up to 51% of some categories of students) said they would _change_ their plans. (Traub et al., 1977) It appears likely that this response is an indication of frustration resulting from the existing state of affairs, even though measures on the other surveys simply suggested that the students favour continuation of the _status quo_ in bilingual institutions.

The study of parental preferences by Comeau is subject to similar difficulties of interpretation: Many respondents to the questionnaire had no previous "preparation" in discussing school-related matters; aware that their children would have to live in a bilingual world, many may have assumed that the precondition to success would be a similar education. The study was conducted early in 1971, just prior to the beginning of the dispute at Sturgeon Falls in which large sectors of Francophone opinion in Ontario rallied to the cause of unilingual French secondary schools. The study results would hardly have permitted anyone to predict the strength of the outburst of feeling among parents, of whom a majority had nevertheless indicated recently a desire for "bilingual" schooling. (However, in Sturgeon Falls, a significant minority of Francophones continued to insist on the bilingual option.)

Behind all these apparent contradictions are phenomena of social change which are seldom brought to the attention of planners and decision-makers. Demand is not a stable quantity, particularly as regards demand for social change. Studies of the rate at which human groups adopt innovations show a pattern that, when graphed over time, looks like an 'S' leaning to the right. The bottom of the 'S', at the left, represents the slow beginning of innovation, in which a few persons ("innovators") adopt an innovation; the majority of persons follow their lead with some delay (the centre of the 'S') and, finally, a few laggards adopt late or never (the upper right of the 'S').[6]



In the face of a questionnaire inquiring about wishes for a social change, the response of groups of individuals depends upon their degree of awareness of how far social change has already advanced. If they have not heard that changes are underway, or likely, they will respond as those would do at the beginning of the adoption of an innovation -- only a few individuals react positively. If, on the other hand, information had led the surveyed individuals to feel that the change is further along, they are more likely to reply in a fashion reflecting the mid-pattern of the curve, and so on. Even today, surveys turn up a significant proportion of persons opposed to free, compulsory education at the elementary level -- an indication of the persistence of the "laggard" effect.

This phenomenon of lag in the growth of demand illustrates the difficulty of assessing the popular wish for a given social change through survey research and questionnaires. It is hardly likely that, surveyed in 1910, the majority of Toronto residents would have foreseen that their descendants would be attracted in large numbers to the Eaton Centre. The growth of a clientele for a business is slow; the same is true for new types of schooling, including bilingual schooling or unilingual minority language schooling.

At this point we may note that our discussion of need and demand has distinguished certain terms: individually perceived need and societally perceived need; expressed demand, potential demand and effective demand. It has been noted that the estimate of demand for changes cannot easily be made without taking into account the way demand alters over time in response to changes in individuals' perceptions of their own needs and of the extent to which social change is already underway to meet them.

3. Level of service. At one point in an earlier section, when the term "level of service" appeared, it was suggested that the reader use intuition in understanding the practical implications of applying the term to a given educational situation. This probably remains good advice, even though a more concise definition of the term is given in the following discussion.

In general, "level of service" suggests some attempt at measuring "how much" service is provided for users. The definition of service was "the use of resources for the intended good of a beneficiary".

From this definition one can immediately derive the two main starting points used in all thinking on the measurement of services: One can measure the use of resources (inputs) or one can assess whether the service meets the needs (intended good) of the beneficiary (outputs). Ideally, one would wish to measure both the resources expended and the good accomplished but, in practice, this is seldom accomplished in any meaningful study of services. The reasons have to do with the complexity of deciding on what is good for the beneficiary; moreover, for a public service, it is possible that what is good for one member of the public is not good for another. And, if one assesses the "good", is it in the light of the individual's own perceptions of needs, or is the criterion to be societally perceived needs?

In short, service levels can be measured in terms of three major characteristics of services:

i. availability
ii. accessibility
iii. effect

which may be evaluated in the light of:

i. individually perceived needs
ii. societally perceived needs
iii. expressed demand
iv. potential demand
v. effective demand

or, one has 3 x 5, or 15, major groupings of types of service level. Because of the role of individual human perception in assessing both need and demand, it follows that no precise measure is possible. Moreover, the potential dimensions of human need (which is, of course, at the base of demand) are infinite.

The traditional way out of this complex labyrinth of interactions between different types of service characteristics and needs is simply to ignore the complexities and define some very simplistic measures: For example, to assess the satisfaction of user needs or demands, one might distribute a questionnaire asking whether parents are "satisfied" with a service. Student learning outcomes may be measured through different types of testing instruments; however, the domain of learning sampled is usually only a small proportion of what schools purportedly teach, and the relationship with resources used is most tenuous (cf. the famous controversy relating to the Coleman report in the U.S.). More frequently, measures of "demand" are developed, such as counting the number of library books loaned in a given period as a measure of satisfaction of needs. In educational systems, a frequent measure of service is the quantity of teacher time available to students, usually estimated in terms of pupil:teacher ratios. In fact, this latter measure gives no indication whatsoever as to what the impact is on the user; it is solely a measure of resources used.

The present research study faces the same methodological problems which have traditionally limited the range of measures applied to services. In the case study portion of our work, our researchers have encountered many subtleties of service level which are visible to the trained observer but which defy quantification or measurement in any comparative sense. In some cases these service levels are indicated in the case studies. Since the main objective of this study is to note variations in educational costs related to differences in language of instruction, most measures of service are based on their relationship to demand for French language instruction and services;

this language dimension is discussed below. Meanwhile, it should be noted that the study has excluded measures of service level related to effect on the user. No attempt is made, for example, to assess the amount learned by students as a result of having studied in a school using a certain amount of resources. Instead, certain indicators of service level were identified after consideration of what is known about educational services generally and about the aspirations of Franco-Ontarians. Most of the indicators are related to the two dimensions of service other than effect: availability and accessibility.

2.3 A STANDARDIZED CLASSIFICATION FOR EDUCATIONAL SERVICES AND COSTS

2.3.1. Need for a classification system

The relationship between services and users can be compared to a classic model of supply and demand. Even though the services are ordinarily not purchased directly (except through partial payment in the post-secondary sector through tuition fees), the situation is analogous to that of an economic model of a market. However, control of supply is not effected through supposedly automatic market mechanisms but through political and bureaucratic decision making. Over long periods of time and provided that the decision-making processes are responsive to public requests, the supply tends to "meet" demand. This is a simple theoretical statement which is far from approximating details of historical reality.

The task of relating costs to service level -- that is, to some measure of user satisfaction (whether of need or demand) -- can be schematized by the following elements:

(a) resources used (costs) ---- (b) service activity ---- (c) user

We have stated earlier that this study would generally not seek to measure directly user satisfaction or effects on the user. In short, the study is dealing primarily with elements (a) and (b) of the diagram. Two problems arise:

a) One must choose service activities (b, in the diagram) which are relevant to user needs or demands; these activities, when studied, give some indication of user satisfaction. Obviously, in many cases, the measurable indicators bear only a remote relationship to users' needs or demands.

b) The resources to be costed should be related to the service activities being monitored as indicators of user satisfaction.

The resources used are generally described in operating educational institutions in two formats: There is a set of financial accounts showing precise expenditures, and one can "name" or "count" the physical resources being used -- teachers, school buildings, textbooks and so on. Such accounts are seldom related in any way to program.

For the study, our problem consisted of breaking down accounts into some meaningful relationship to services. In order to do this, as a beginning for the whole task, it was necessary to conceive some organizing basis for orienting the search for data. A standardized classification system was developed to mediate between resources and costs in our initial definition of the problem. The system was a necessary beginning for a series of case studies into a topic relatively little explored. Our experience with its uses has shown the following relevance:

a) The scheme was extremely useful for systematizing the definition of the problem and for generating initial data instruments.

b) The general conceptual principles involved in its construction are relevant to all types of similar problems, even though the specific codes used are obviously arbitrary and subject to adaptation for other uses.

c) The system is sufficiently "robust" that it could be adapted without difficulty for a study many times the size of the present one and converted to automated data-processing system use for large quantities of data. Relatively dissimilar service situations can be described with the system and cross-indexed in a meaningful way.

d) The investment in automated data processing would not have been justified for our study, given the data volumes. The system would be maximally useful in a longer-term study in which far more refined measures of service level were developed.

In this sub-section a description will be given of the organizing principles of the classification scheme and the codes used. A technical paper prepared during the research gives a slightly more complete description of the system, together with algorithms for cost breakdown, a sample coding form and other related data for eventual conversion to electronic data processing.[7]

2.3.2. Definitions and limitations

For the purposes of the present discussion, a service is defined as an interaction between a user and some element of the educational system (a meeting with a teacher, the reading of a report card, voting in an election for board members, and so on). Users are children of school age and their parents and families.

The classification scheme was designed to permit all costs incurred at the level of the schools, school boards and, eventually, regional offices of the Ministry of Education, to be broken down and allocated to services. It followed from this objective that the purpose was to identify "services" of the type which are visible and therefore chargeable by simple observation. The typology of services was intended to identify the visible resource inputs to the interaction which are provided by the educational system. Thus, "instruction" is defined in terms of the provision of a teacher to be present in a classroom; the teacher and the classroom are "resource inputs" paid for from tax monies; when a child sits in a school bus on the way to school, he is receiving a service for which the bus and bus driver are resource inputs.

(It should be repeated that neither the categorization scheme nor the concept of "levels of service" will permit us to deal with two problems: First, it will not be possible to put a cost upon the outcomes of the educational process, such as the amount of learning resulting from instruction. Secondly, one will not be able to assess the implications of such things as "atmosphere" of teaching. Such elements are extraordinarily important for many users, but they are not costed at this point. An example would be the fact that the existence of the separate school system is postulated upon the inculcation of a certain set of values within an environment where Roman Catholicism is an important "presence".)

The typology is defined in terms of three sets of classifications:

1. Major service category (primary/secondary)
2. Service source
3. Service type by objective and content

2.3.3. Presentation of the classification categories

1. Major service category. This category level is based upon the type of relationship between user and service and depends upon the directness of the relationship. Three general categories are proposed (see Table 1):

a) Primary service: The person benefitting from the service receives it in his/her capacity as a member of the general public. Examples: a pupil receives instruction in a class or borrows a library book; a parent is informed of a child's progress by a report card.

b) Secondary service: A secondary service is any activity carried out by the educational system which contributes to render a primary service. For purposes of convenience, we shall further distinguish between:

(i) Staff/teacher-used services: Services which are primarily delivered "via" a staff member involved in giving (or assisting in giving) a primary service.
Examples: professional development activities for teaching staff, who are involved in providing the primary service of instruction to students; advice from the regional office of the Ministry of Education to a school board curriculum consultant who, in turn, renders another secondary service by assisting teachers.

(ii) Environmental services: Services which are directed to providing the material conditions in which primary services and staff/teacher-used services can be rendered. Examples: physical maintenance of buildings; board payroll and finance operations; ordering and delivery services, etc.

The major sub-categories of primary services, presented in Table II.1, can be changed for other applications and modified to clarify the terminology for persons not familiar with this type of work. The underlying concepts are quite simple, and the sub-divisions correspond to important policy concerns related to costs and services. Secondary services are not further broken down at this point in the taxonomy. (See below, breakdown by content.)

It should be noted that the distinction between teacher/staff-used services and environmental services is not always clear, so that allocating services within these may be arbitrary (though it should be consistent in a given application). A few special cases also arise which make it difficult to distinguish between primary and secondary services: A psychological diagnostic service for pupils provides information to the teacher but is classified by us as a primary service. The classification is based on a consideration of the fundamental importance of the service for the well-being of certain types of pupils and it has a certain intuitive acceptability, in that the individual pupil participates directly in the interaction with the diagnostician.

The relevance of the primary/secondary distinction for automated costing can best be understood in the light of the costing technique of "costing down" from one administrative or organization level to another. In general, a primary service receives its final costing at the corresponding level and includes all overheads (i.e., secondary source costs) from higher levels; no further breaking down occurs. Costs of secondary services at one level are either allocated to a primary service at the same level or shifted to one of the lower levels.

TABLE II.1: MAJOR SERVICE CATEGORIES

Primary services	
PS1	Regular instruction (not including student services)
PS2	Student services for regular instruction
PS3	Community-school interaction
PS4	Special instruction and student services
PS5	Transportation
PS6	Community-board interaction
PS7	Community-region interaction
Secondary Services	
SS1	Teacher/Staff-used services
SS2	Environmental services

2. Service source categories. The technique of costing down requires a mechanism for identifying the origin of costs. The concept of "service source" combines the concept of origin within hierarchical level with the concept of source of funds: not all costs within an educational system are incurred by the Ministry of Education and its dependent school boards. The different categories of service source shown in Table II.2 are intended to be logically complete. For the present study, only levels 1 through 4 were used for costs (plus level 5 for services), though levels 11 and 12 were referred to while making a complete description of the services available in some school boards.

3. Service type by objective and content. The same type of activity may be carried out either as a primary or secondary service. That is, to take a simple example, teaching a child is considered a primary service, whereas the in-service training of teachers is considered to be a secondary service. Also, one finds that similar activities by "content" occur at different service bases in the system.

Table II.3 presents a set of categories of activity by "content objective". They are grouped into two major headings for purposes of clarity: Some services have as their objective primarily the furnishing of services of persons, others are primarily intended to furnish physical resources. The furnishing of physical resources implies the work of many persons, both in the school setting and elsewhere; the service is classified by the "content" of its objective, not by the involvement of people as "resources" in furnishing the service.

(As a technical note, one may observe that the category "furnishing

TABLE II.2: SERVICE SOURCE

S01[a]:	Services based in the student's usual instruction setting (classroom or teaching area, including shops for vocational training, gymnasium or field for physical education, etc.)
S02[a]:	Services based within the school
S03[a]:	Services provided at or within the school but based outside school
S04[a]:	Services provided from school board offices or similar board-wide service setting (e.g., teacher resource centre)
S05:	Services provided from a regional office of the Ministry of Education
(S06:)	Services provided from the central offices of the Ministry of Education
(S07:)	Services provided by any Ontario governmental agency other than the Ministry of Education or its subordinate agencies
(S08:)	Services provided by any Federal agency
S011[b]:	Services provided by a church or religious affiliated organization or agency (other than a separate school board or its dependencies)
S012[b]:	Services provided by any volunteer agency or individual citizen
(S013:)	Services provided by any private firm or enterprise

Note: For costing purposes a facility used across a board, such as a teacher resource centre, would be classified at S04, even if it were located within an individual school. Services from one board to another would be costed on an ad hoc basis, the source depending upon the specifics of each situation.

[a] Service sources used in present study for costing purposes.

[b] Service sources referred to in present study but not costed.

services of persons" refers to activities having as their content the communication or transformation of information.)

2.3.4. Using the Categories for Costing

The use of the categories for costing can best be understood by showing how the categories interrelate. Table II.4 provides an example of services as they are typically found in portions of the Ontario educational system. The reader should note that the last column, service activities (by content objective), is not necessarily complete at any given level; as different services are identified, they are classified at the appropriate level, so that the configuration of services in any given school board is likely to be slightly different from that of any other.

Costing proceeds as follows: First, all costs are broken down to determine where the expenditure occurs -- e.g., teachers' salaries are identified as being incurred (in most cases) at the school classroom level; the costs of superintendents' salaries are incurred at the board level, etc. Thus, one has a listing of costs occurring at different levels of service source. However, some of the costs are incurred to provide a secondary service -- a service within the system going to the next level down. The second step in costing involves working downwards from the "highest" service source (SO5 in the example) and proceeding to allocate costs to identifiable services. Secondary services are ordinarily moved down to the next lower service source, where the allocation process between primary and secondary services is repeated. At the lowest service source, all costs are allocated to primary services so that there is no remaining residual of secondary service costs.

TABLE II.3: DIFFERENT TYPES OF SERVICE ACTIVITIES BY OBJECTIVE AND CONTENT OF SERVICE

Principal Objectives - Common Description	Content Categories
Furnishing services of persons	
Administrative services	A1: Decision making and participation by public A2: Supervision of staff A3: Administrative data handling
Instructional/Education-related ("Formation")	F1: Instruction (including supervision of student activities) F2: Diagnostic, Counselling, religious guidance F3: Academic/pedagogical advice (to staff only)
Medical Services	M1: Medical and Dental Services
Furnishing physical resources[1]	
Equipment	E1: Learning materials and equipment E2: Capital equipment and buildings
Transportation	T1: Pupil transportation T2: Goods movement
Food	R1: Catering and similar services

[1] The furnishing of physical resources implies the work of many persons, both in the school setting and elsewhere; the service is classified by the "content" of its objective, not by the involvement of people as "resources" in furnishing the service.

2.3.5. Technical notes on costing

The following are general notes on use of the system for costing. Major adaptations were made to this general schema in the actual study.

a) The grouping of services within service source shown in Table II.4 is intended as an illustration. In any case study, the content of column 3 (service activity) was based upon what actually happens in the school system being studied.

b) The content categories for service activities in Table II.3 were intended to be used to group the more detailed descriptions and categories of services developed in the case studies. This grouping is necessary for analysis between school boards.

c) The services costed in all content categories would usually include both personnel and non-personnel costs. For example, the costs under "E2: Capital equipment and buildings" might include both capital expenditures, utilities (heat, electricity, etc.) and salaries for maintenance, among other things.

d) When secondary service costs are analysed at one service source level, it may be discovered that the secondary service is used, not at the next lower level, but at a service source farther down the hierarchy. Such costs are immediately "dropped" to the appropriate level without passing through the intermediate service sources.

TABLE II.4 (Page 1 of 2)

DIFFERENT TYPES OF SERVICES WORKING "UPWARDS" FROM A TYPICAL SCHOOL SETTING

Service Source	Service Category	Service Activity
SO1: Classroom	PS1: Regular Instruction	F1: Teacher instructional activity E1: In-class resources (reference books, special equipment/non-capital equipment)
SO2: Within-school	PS2: Student Services for Regular Instruction	F1: Remedial instruction (resource withdrawal) F2: Counselling (F2: Religious advice) -- SO11 E1: Library facilities
	PS3: Community-School	A3: Grade reporting, student records A1: Participation (Parent-teacher fed.)
	SS1: Teacher/Staff-used Services	A2: Supervision of staff A3: School Office F3: Pedagogical advice (from dept. head, etc.)
	SS2: Environmental Services	E2: Building E2: Maintenance E3: Utilities R1: Catering services
SO3: At school from outside base	PS4: Special Instruction and Student Services	F1: Summer school[1] F1: Education of exceptional children (self-contained)[2] F1: Night school[1] F2: Diagnostic referral services
	PS5: Transportation	T1: Pupil bussing T1: Transportation of handicapped (T1: Crossing guards) -- SO7

[1] Summer school and night school programs are usually held in a limited number of schools but are ordinarily administered independently from the programs of the host school.

[2] Self-contained programs are frequently organized for a larger clientele than a single school.

Table II.4 (Page 2)

Service Source	Service Category	Service Activity
	SS1: Teacher/Staff-used Services	A2: Supervision F3: Board consultancy on pedagogical matters, in-school professional development
	SS2: Environmental Services	A3: Data handling[3]
S04: School Board	PS6: Community-Board Interaction	A1: School board meetings A1: FLAC committee or committee of parents A3: Information programs F2: Personnel providing information
	SS1: Teacher/Staff-used Services	E1: Audiovisual services E1: Resource centres[4] A2: Supervision
	SS2: Environmental Services	A3: Central financial and similar services T2: Delivery services E2: Board office buildings
S05: Regional Office (Ministry of Education)	PS7: Community-Region Interaction	A1: Communication Programs A1: Community assistance (e.g., prior to creation of new school) --: Services to individual (exception basis)
	SS1: Teacher/Staff-used Services	A2: Supervision F3: Pedagogical advice
	SS2: Environmental Services	A3: Administrative data handling

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[3] Central administrative services to the school are listed for logical completeness. For convenience sake, they are ordinarily costed at board level (SB4).

[4] Resource centres are frequently housed in individual schools but generally serve teachers from across the board.

2.4 ALLOCATING COSTS AND COMPARING SERVICE LEVELS BETWEEN LANGUAGE GROUPS

2.4.1. Principles

The principles for allocating costs by language are very simple:

a) Costs are allocated in accordance with the language of the user.

b) Where two language groups share the same service, the costs are divided proportionately to the usage made by each group.

If a classroom of Francophone children is receiving instruction in French, then the costs of the instruction are considered costs "on the Francophone side". If an auditorium is used 50 per cent of the time by English language classes and 50 per cent of the time French language ones, then the costs would be split on the basis of 50 per cent to each group.

Relating these principles back to the system of "costing down" described in the previous sub-section (II:2.3.4), the mechanisms involved may be restated as follows:

a) All secondary service costs are broken down to the appropriate primary services. If there is any basis for assuming that distribution of secondary services is not equal among providers of primary services, the breakdown uses the principle of actual usage made of service (cf. b, above).

b) Primary service costs are then broken down in accordance with the language of the (primary) user.

Thus, in a French language elementary school, all secondary service costs are broken down to the appropriate service, then allocated 100 per cent to the costs of providing instruction to Francophones. The services of a special education consultant serving a group of four elementary schools would be prorated between the schools on the basis of usage made or, if there was no basis for assuming unequal usage, following a simple basis for proration such as numbers of students in each school.

2.4.2. Complicating factors

A simple and unambiguous cost accounting method, capable of dealing with all mixed language situations encountered in practice, does not appear to exist. The problems arise because there may be a difference between the language of the users and the language of (service) delivery. In the most blatant case, one might imagine a classroom in which 100 per cent of the children are Francophones and the teacher only speaks English. No simple solution will satisfy all points of view on this situation. Three cases can be considered:

a) The costs are considered entirely as providing service to Francophones, since they receive the service. However, in the event that the pupils and their parents would prefer to have a Francophone teacher teaching in French, it could be argued that they are not receiving a proper educational service at all, that the purpose of the service is to aid the Anglophone community by making the French children "fit in" and, therefore, that the costs should be allocated to the English side: "No service, no cost." The solution is unacceptable.

b) Trying it the other way, one can allocate the costs entirely to the English side. This raises the immediate objection that English culture is not totally worthless and that the Francophone children are obviously receiving an educational benefit, both because learning English is an acknowledged goal of the system and because they are also learning "contents" (after a certain transition period for some), things like principles of arithmetic and facts of history. The solution is unacceptable.

c) The final possibility is dividing the costs to take into account the "percentage of educational benefit" derived by the children to determine the amount of costs allocated to Francophone educational services. Without further demonstration, we will state as axiomatic that the grounds for such a division do not exist in any theory which would stand the test of public scrutiny. The solution is unacceptable.

The example just given was deliberately chosen to illustrate the extreme case of a situation not found in Ontario, and the arguments against each allocation method were similarly stated in their most extreme form. The purpose was to illustrate two principles: First, short of the logical absurdity of excluding all ambiguous costs from consideration, one is forced to admit that any solution will be a compromise unsatisfactory from one viewpoint or another. Secondly, the decisions taken in allocating costs can encounter criticisms which are extremely polemical in nature. These two principles are the "facts of life" in doing research on this topic.

In simple terms, our approach to this has been: Begin with the idea of a primary service which would be given 100 per cent in the language of the users and in which all relevant secondary services are given also in the language of the users. We may call this the expected standard of service in a language. A variance from this standard occurs when there is a shift of language anywhere in the sequence of a primary and relevant secondary services, for example the primary service is less than 100 per cent in the expected language, or some secondary service is given in a different language. Using this concept, costing proceeds as follows:

a) Do the cost breakdown of secondary services to primary services using whatever data can be derived from the situation: For example, a French language superintendent might spend all his time working with French language schools; the entire cost of his services would be charged against those schools. Wherever there is no clear basis for allocation by language, use some appropriate method to prorate the costs.

b) Apply the general principle and allocate primary costs according to the language of the user.

c) Where the service does not conform to the "expected standard", note the cases as a "lower level of service"; significant cases of lower level of service are described in the reports and, if possible, analysed on a comparative basis.

(In our original example, the costs would have been allocated 100 per cent to the cost of Francophone education, but the fact that the entire service occurred in English would have been pointed out less as a "lower level of service" than as a distinct aberration from policy and current practice.)

2.4.3. Language shifts in and between primary and secondary services

The linguistic and cultural quality of a service is not determined solely by the language of delivery to the user. An example illustrates this. If a teacher gives instruction in French but is obliged, for want of appropriate reference books in French, to draw personally upon materials intended for Anglophone teachers, there is likely to be a lowering of educational quality for reasons such as the following:

a) Ideas written in English are not necessarily structured in the pattern most suited for understanding and presentation in French. The teacher will not only have to understand the materials but will have to restructure them in an appropriate fashion. Such rethinking of all materials is an enormous and usually impossible burden.

b) The ideas may have been presented in a fashion that was designed to help teachers to solve the specific problems of Anglophone students. Because Francophone students, particularly in a minority situation, have distinct problems, the original effort of designing the materials will have been lost, except for the points which both Francophone and Anglophone students have in common. Determining which portions are applicable, eliminating the inapplicable, and contriving new solutions for problems not dealt with in the sources, all involves considerable additional effort.

c) A person's intellectual style is considerably influenced by reading. In explaining things, one searches instinc-

> tively for analogies and examples. The Francophone teacher obliged to spend hours of lesson preparation in English, prior to giving lessons in French, is absorbing different cultural points of reference for explanation and, at the same time, is being deprived of the opportunity (for want of time) to become familiar with the corresponding ones from French sources.

The only compensating factor in this situation is that the teacher, having the personal experience of being disadvantaged, may be stimulated to make a much greater effort than under normal circumstances.

Considerations such as these have led policy-makers to favour school situations in which, as far as possible, a French cultural atmosphere is maintained, in the interests of both students and teachers. The quality of education is influenced not only by what occurs overtly in the classroom but by the whole range of backup activities in the surrounding environment. For example, it is considered important that Francophone teachers have supervisors of the same language. It did not seem possible to account for very general environmental factors; our study was obliged to deal with the case where secondary services are provided in English to a Francophone teacher.

Such costs represent a significant overhead that could not be overlooked. The approach taken can be illustrated by a few examples of the types of decisions that have to be made in applying costing principles to case studies. (Examples are lettered sequentially for cross reference.) First, the two simple cases presenting no problems:

a) A primary service is given to the user in his or her own language and the relevant secondary services are in the same language. Example: A Francophone teacher in a French language school is supervised by a French language principal. The principal's salary is a French language service cost.

b) A primary service is given to the user in his or her own language and the secondary service is totally unrelated to the quality of education in the classroom. Example: The pay clerk in the board offices calculates the teacher's salary; the pay clerk speaks English. The pay clerk's own salary constitutes a general overhead with no differential incidence on quality of education in either language group; it is prorated evenly across the system.

c) A bilingual person provides a secondary service to two groups, each in their own language. A bilingual superintendent (usually a Francophone) is responsible for a group of schools, some English and some French. On the assumption that the quality of supervision would be roughly equivalent for both groups, the superintendent's salary might be prorated across the schools. If his time were evenly distributed, this might be done on the basis of, say 40 per cent for two French schools and 60 per cent for three English schools. However, if analysis showed that the division of time was controlled by some other factor (the two French schools were disproportionately large and require 60 per cent of his time), then the division might be made on the basis of estimated time spent.

This example has illustrated a constant theme of the work, which has been to determine where use of secondary services is unevenly distributed.

Wherever possible, the principle applied is to divide services in relation to actual expenditure of effort: time spent, number of persons "served" or some similar factor being used to make the proration. There may be problems in doing this in situations which are the exact reverse of c):

d) A unilingual person provides a secondary service to a mixed public that includes bilinguals. Example: A unilingual Anglophone mathematics consultant provides advice both to Anglophone and Francophone teachers. The latter are bilingual and may have done their university studies in English. In the limited sense of "cultural mismatch" illustrated earlier in referring to the Francophone teachers' problems in using English textbooks, there is perhaps a lower level of consultancy service offered to Francophones in this case. Assessing this objectively, without observing the persons involved in great detail over long periods of time, is close to impossible. Therefore, one is generally obliged to proceed on the assumption that services are equally distributed to teachers of both language groups. Our case studies have revealed, however, that other factors may intervene and should be considered where appropriate: For example, the consultant may inform the researcher that Francophone teachers make significantly fewer requests for assistance. This assessment would be used to adjust cost allocations if it proves possible to estimate in a meaningful way the difference in effort expended.

The last case illustrates the need for extreme caution in making cost allocations. Care may reduce, but not eliminate, the chance of making incorrect estimates. To reduce such errors, it was decided early in the study to consult as frequently as possible with school board personnel on any difficult or ambiguous items.

The discussion of language shifts would not be complete if mention were not made of language shift within the primary services themselves. These shifts take two forms:

e) The user is presented with a range of possible services from which to choose, but the range is not completely available in the language of the user. Example: A school board offers a summer school program in which most courses are available in English and a few in French. The Francophone pupil may be obliged to take a needed course in English; even though the treatment of the individual in the classroom is "equal" in every respect, the level of service is, by definition, unequal because the choice is limited. This difficult case has been treated in accordance with the general principle: The cost is allocated to the language group of the user but the service level is noted as inferior. (The practical application of this principle is extremely difficult and involves making estimates of proportionate costs for minority group members' participation in a majority group instructional situation. This point is dealt with later in discussing costing technicalities.)

f) The service is nominally offered in the language of the user and every effort may be made to ensure that this intention is complied with; however, operational contingencies make it necessary to use a different language. Example: A secondary school offers a course taught in French; the only available French language textbook is outdated and unsuited to the needs of the course, which makes use of an English language textbook in parallel; discussions frequently shift into English simply because it is the most natural way to explain and discuss materials presented in English. The service is costed to the French side, but the service level is considered lower.

The last two examples are applied to cases where they affect primary service users, the students; the exact analogues are encountered by teachers seeking secondary services.

2.4.4. Comparing "higher" and "lower" levels of service for two language groups

Reference has been made to a lower level of service defined as not up to the expected standard of service in which all primary and all relevant secondary services are given entirely in the language of the (primary) users. The definition takes as a point of reference the idea of a unilingual set of educational services. As noted earlier, however, Ontario has always had a system where both languages are used. For this reason, the use of such a definition implies that, in each situation, one does not look for a monolithic unilingual standard among English language services but rather for cases of inequality resulting from the failure to provide services in the minority language. WE DO NOT ASSUME that a unilingual system is always better than a bilingual one. Even if the results of its use may require careful interpretation, some such unilingual measurement base is, however, useful as a starting point for logical analysis. In practice we have found, moreover, that most of the situations where the Francophones did not receive services in accordance with this unilingual base measure, were also situations which resulted in an educational disadvantage that was observable and often measurable.

The concept of expected standard of service is the unifying logical factor that makes possible several different types of service level analysis. We distinguish the following types of analysis:

a) Logical analysis of presence or absence of service
b) Situational analysis of compensatory service requirements
c) Analysis of quantity and quality of resources
d) Analysis of user choice ranges
e) Analysis of discontinuities in service language

1. Logical analysis of presence or absence of services. The point is basic: Does a service exist, or not? It may exist for one language group or the other, for both or for neither. Table II.5 presents a series of logical alternatives ('0' indicates a service does not exist, '1' that it does) for situations where it is noted that a given service is offered or is not offered. Cases 1-A through 1-D correspond to simple logical alternatives presented without consideration of the social or educational context. In the last column is an indication of the resulting situation of equality or inequality. Such an analysis assumes that equality is based on treating everyone alike. This is what Jencks (1972) refers to as providing "equal opportunity". It appears that this assumption is widely shared by members of the Anglophone majority in the province and is related to the belief that social and contextual factors affect both language groups on an equal basis.

2. Situational analysis of compensatory service requirements. A different logical system results from replacing the idea of "equal

TABLE II.5: INEQUALITIES RESULTING FROM PRESENCE OR ABSENCE OF SERVICES

Case	E	F	Contextual Factors	Resulting inequalities
LOGICAL ANALYSIS: PRESENCE/ABSENCE				
1-A	0	0	Nil	Equal: neither has service.
1-B	1	0	Nil	French have lower level of service.
1-C	0	1	Nil	French have higher level of service.
1-D	1	1	Nil	Equal: both have service.
SITUATIONAL ANALYSIS: COMPENSATORY NEED			As minority group, Francophones have needs for compensatory assistance in order to overcome situational factors.	
2-A	0	0	If missing service is compensatory, then Francophones may need it to obtain equal satisfaction of learning needs.	French have lower level of service.
2-B	1	-	Unless some specific compensatory need among Anglophones (cf. children of recent immigrants), Francophones presumably have at least same need.	French have lower level of service.
2-C	0	1	If service is compensatory only, then Anglophones do not need.	French have equal level of service.
2-D	1	1	If service is exactly equal but Francophones have special needs, these are not being met.	French have lower level of service.
SITUATIONAL ANALYSIS: LANGUAGE INDEPENDENT			The service can be rendered in either language without affecting quality	
3-A to 3-D: All combinations			Provided that access to service is provided for both groups, then language of delivery does not affect equality.	French have equal level of service in all cases.
QUALITATIVE ANALYSIS				
4-D	1	1	If service appears overtly the same, quality may affect either group adversely.	Equal, but secondary analysis may determine that either group has lower level of service.

opportunity" or treating everybody alike by that of "compensatory opportunity" or helping the neediest.[8] Cases 2-A through 2-D in Table II.5 show the implications for equality of relating the presence or absence of services to the specific needs of a disadvantaged group. Such needs may appear as a result of historical evolution, socio-economic disadvantage or an imbalanced language environment in the surrounding society. All of these reasons for disadvantage apply to Franco-Ontarians: The historical evolution of the educational system, which in the past caused differential dropout rates, has caused the average level of education to be less than that for other sectors of the population (particularly as regards post-secondary education completed); incomes are below average; finally, in order to maintain the French language at its present level, great effort must be made to resist the pressures like that of English language television and radio which encourage use of English.

Obviously, not all educational services are defined a priori as being related to compensatory needs. The cases in the table have been presented to show, for those specific services identified as important for compensatory purposes, the implications of taking into account relative disadvantage. In the right hand column it will be noted that in all these cases except one, the Francophones have a "lower level of service"; in the remaining case, in which they have a service not available to Anglophones, they have an "equal level of service" (assuming that the compensatory service works). For want of a better term, we may call this the "logic of compensatory services." In layman's terms, equality only exists when they have more services than others. The general public appears to have accepted its application to specific problems of physical or perceptual handicap but has difficulty in generalizing it to the problems of minorities striving to maintain linguistic and cultural identity.

Cases 3-A to 3-D are presented in the table for logical completeness. It is clear that (a) if it makes no difference whether a given service is offered in English or French and (b) if the service exists in either or both of the languages (or if it does not exist at all), then both groups have equal treatment in all cases.

3. Analysis of quantity and quality of resources. Case 4-D in the table introduces a most important dimension, that of "quality". If a service exists on an apparently equal footing in both languages -- e.g. a textbook exists for the French language class in mathematics and another one exists for the English language class -- then there is an apparent equality; however, analysis of the quality of the resources used (such as the textbook) may reveal inequality.

Measures of quality are very hard to apply to resources because there is great difficulty in defining what "quality" means. There is often a discrepancy between measures of resource "input" quality and measures of "output" quality. For example, pupil/teacher ratio in a school is a measure of input quality; however, there is little evidence to suggest that within the normally defined limits of class size in Canada, the size of class has much effect on the major traditionally recognized learning outcomes.[9] On the other hand, a whole school of thought considers the experiential nature of happenings in the classroom -- the "quality" of the child's life -- as a measure of outcome, independent from traditional measures of learning; having more attention from the teacher would therefore be a higher "quality" of output. In the first instance, the relationship of input to output is weak; in the other, the link is clear but the output is defined in a manner regarding which agreement is difficult to obtain. The same contradictory type of observation applies to measuring levels of certification among teachers: Most people agree that well trained teachers are better than poorly trained ones. However, the certificates that are often used to "measure" training seldom can be correlated with any precise learning outcome.

Most of the readily available indicators of quality of resources used in educational services are subject to similar reservations and, in larger scale studies, tend to merge with measures of quantity. Thus, while pupil:teacher ratio affects the quality of service, it is in essence a measure of the quantity of teachers being supplied. If one then tries to measure the level of certification for different groups of teachers, the resulting averages of certification level correlate with a simple count of the number of years of post-secondary education (if they correlate with anything at all). Frequently, the closest one can get to a measure of quality of resources is a simple count of resources available to the user. This is hardly satisfactory in a general intellectual sense but the two measures of pupil:teacher ratio and teacher certification level, together with years of teacher experience, are the basic factors controlling the bulk of educational costs. They are relevant to costs, if not always to quality.

4. Analysis of user choice ranges. The analysis of choices open to users is closely related to the first two types of analysis outlined above. If a Franco-Ontarian parent wishes to register a child in ele-

mentary school, depending upon the locale, a French-language school may exist, or it may not; since English language elementary schools are always available, the presence of a French language school presents the parent with the possibility of choice. The school can therefore be considered in the light of an analysis based on the logic of "presence or absence of service" or in terms of a range of user choices. Speaking of range of choice is another way of considering presence or absence of defined services; it is discussed separately because of the emphasis placed upon the desires of the user. This user-based perspective justifies adding an important exception to the basic principle of using "expected standard of service" as a measure of service level. Let us look at the general rule and the exception:

a) The rule of expected standard of service is based upon an assumed set of user needs applicable to Franco-Ontarians as a group. On this basis it is possible to analyse, for example, the range of courses offered in a mixed high school and determine whether Francophones have the opportunity to choose from a greater or smaller number of courses in French than in English. If the number of available courses is smaller, the rule of expected standard of service would suggest that a lower level of service exists for the group of Francophone students.

b) If Franco-Ontarians are considered as individuals, then it is possible that an individual would consider it a higher level of service to have a range of options open. In the high school this might mean choosing mathematics in English and the remainder of courses in French. At the level of the family, it might mean that children can choose between three high schools -- one English, one French and one mixed. This freedom of individual choice may operate, in other words, contrary to the principle of expected standard of service.

In carrying out research, we have adhered to the principle of expected standard of service in presenting detailed data on service levels, but in interpreting these data for purposes of conclusions, we have also felt it necessary to look at the opposite principle of freedom of choice in spite of the presumed preference for service in French. In other words, both points of view have to be presented in order to deal with the topic.

5. Analysis of Discontinuities in Service Language. This mode of analysis was described in a previous sub-section related to problems of allocating costs in situations where the language of the user differs from the language of delivery for primary or secondary services. In basing the definition of expected standard of service on the concept of discontinuities in service language, the word "relevant" was emphasized with respect to secondary services. The decision on what is relevant to the user is hard to make and obeys no simple logic. Our approach has been to review opinions by others and select those which appeared to have obtained some consensus. Public policy statements have given legitimation, for example, to two goals which are particularly relevant (cf. report of the commission headed by T. Symons, Commission ministérielle, etc., 1972):

a) Maintaining a unilingual line of supervision: As far as possible, teachers are supervised by French-speaking supervisory officers. An implicit gradation may be observed in some cases, such as: (i) supervision by a Francophone Ministry of Education official from a regional ministry office combined with an in-school supervising Francophone teacher; (ii) a

Francophone assistant principal under an Anglophone principal; (iii) a Francophone principal under an Anglophone superintendent; (iv) a Francophone principal under a Francophone superintendent.

b) Maintaining a distinctive French cultural environment in the school: In the interests of encouraging a French cultural milieu, recommendations have been made for grouping Francophone students in autonomous instructional units along a scale from least to most desirable: (i) separate classes; (ii) separate wing of a school; (iii) physically separate school.

TABLE II.7 EXPENDITURE CATEGORIES USED FOR PREPARING SCHOOL-LEVEL SUMMARIES

1. Business Administration
2. Instruction
   - Salaries and Wages
   - Supplies
   - Other
   - SUB-TOTAL INSTRUCTION
3. Educational Services
4. Plant Operations and Maintenance
5. Other Operating

   TOTAL ORDINARY EXPENDITURE

6. Transportation

2.5 PRELIMINARY RESEARCH HYPOTHESES

Although the nature of case studies usually precludes the verification of many types of hypotheses, in such studies it is nevertheless extremely important to define hypotheses for guiding the collection and analysis of data. For this reason, a carefully selected group of hypotheses were generated early in the study. They are presented in APPENDIX A in the original wording (except for very minor editing). The general formulation pattern differs from that usually found in research papers. Each hypothesis is stated in the form which is most likely to be understood, not the form most suited for statistical inference.

The list is important as a guide to potential areas for future research as well as to assist in conceptualizing the complexity of the questions related to costs of services. It may be said in retrospect that the hypotheses proved remarkably useful for orienting the first phases of the research. On the other hand, as the case studies progressed it became clear that the available data sources were insufficient, without massive amounts of additional investigation, to permit the use of such a complete range of hypotheses. For example, in respect to transport costs, no board sampled possessed data in sufficient detail to begin breaking down costs by language group; a full-scale research project would have been required to elucidate the matter. As a result of problems such as these, it was decided to use a much simplified approach based on a relatively simple logical foundation. This is outlined in Section III.1.1.

2.6 PRELIMINARY ANALYSIS OF INDICATORS OF SERVICE LEVEL

The first step in operationalizing the concept of service levels was to make a preliminary "map" of indicators which, in the circumstances, might potentially be obtained. The basis of doing this was the standardized classification for educational services and costs, presented above (II:2.3.). For each type of major service category and for each service source relevant to the study (S01 to S05) relevant indicators of service were systematically defined. A much broader range of indicators was defined than could possibly have been collected within the available time; the purpose was to provide a maximum of possibilities from which to make a final selection. This list, presented in Appendix B, constituted a source document for the selection of indicators used for data collection. In the preparation and selection of indicators related to staffing levels, reference was made to various technical studies including that of Levasseur (1976).

3. THE FRAMEWORK FOR DATA COLLECTION

The design of data collection frameworks was a long process in which very broad outlines were successively narrowed to focus on essential items. This section summarizes the most salient points of the data collection related to services and costs.

3.1 SERVICE DATA

The study dealt with two major data sources. The first was provided by the reports filed each September by principals of all schools in the province; the second was derived from the analysis of case studies in the boards included in the sample. Data collection did not, in and of itself, constitute a problem: the data for the September reports was available in machine-readable format from sources in the Ministry of Education, and the case studies involved relatively routine visits to school boards, interviewing and the collection of relevant documentation. The difficult problem was to narrow down the focus of the study sufficiently that data could be collected solely on points likely to be useful for the aims of the study. The following list summarizes the major steps. It is important to note that this is an analytical overview, not a sequential description. The actual process of reviewing, revising and changing is far too complex to describe.

a) A general theoretical framework was designed. It was used as a means of organising and integrating all the work of the project, even though its specifics could not be applied without simplification. Because of its potential utility for subsequent research, the elaboration of the theoretical framework continued throughout the

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e) Total Instruction: The sum of the above three items.

f) Educational Services: The total of all items, except Capital, appearing under Educational Services in the board-level data.

g) Plant Operation and Maintenance: The sum of plant operational and maintenance costs.

h) Other Operating: The sum of Attendance, Health and Food Services and Other Operating Expenditures in the board-level data.

3.2.4 Conventions for allocating costs between French and English

The process of allocating costs between sectors was based upon the general principles outlined earlier (II.2.4.1). For most cases this did not prove difficult. Thus if a school served only Anglophone pupils, all related costs could be allocated to the expenditures for the English sector, and vice versa. Instructional administration costs were broken down whenever a clear division of tasks with no overlap was found. Despite our best attempts to make clearer division of transportation costs, the method adopted was based upon a system of partial proration; school boards generally lacked any data source permitting us to assess distances travelled by students of each language group. Mixed secondary schools presented a special problem, so that a detailed study had to be done of each. In the following portions of this section, a more detailed technical explanation is given of the procedures followed.

3.2.4.1 General accounting procedures

In order to provide a uniform system of reporting the expenditures made by the school boards in our sample, it was decided study, using data as it was gathered to test its general validity. The framework is outlined in the previous section.

b) The indicators of service level (II.2.6) were used to define specific questionnaires for use in school boards for the case studies. Upon examination, it was clear that the questionnaires were of such length and complexity that there would be little chance of refining them fully in the course of the project. Moreover, given that the domain covered was little known, it was felt that a questionnaire procedure would eliminate much useful detail. It was decided, therefore, to use the draft questionnaires as the basis for designing interview schedules.

c) The data from the principals' September reports was analysed to determine what information could be obtained directly from this source. Some items from the interview schedules were revised; others were dropped. Preliminary data analysis together with early results from interviews helped to determine which areas of service required detailed study.

d) Preliminary analysis indicated that there was little likelihood of revealing significant language-related differences at the elementary level. Most available indicators were too rough to show up major differences. The only promising approach would have been to obtain indicators of student outcomes through large-scale testing; this was excluded a priori. An intensive study that stopped short of measuring student outcomes appeared likely to result in the expenditure of much energy and resources without proving anything. The decision was then taken to limit drastically the measures of service level to be studied at the elementary level; the only major data to be used would be derived from the September Reports and would be mainly descriptive. Detailed draft questionnaires had already been prepared for elementary schools; they were dropped and no interview schedules were prepared.

e) On the other hand, preliminary data indicated major differences in service level in the secondary schools. The differences appeared both in comparing Francophones to Anglophones and in comparing Francophones enroled in different types of schools. An interview schedule was therefore prepared for administration in every French or mixed secondary school included in the sample. In addition it was felt that a special study should be undertaken on requirements for creation of new services. As indicated earlier, an instrument was sent to all French language and mixed secondary schools in the province; the results are reported elsewhere, though some are incorporated in later portions of this report.

f) From preliminary interviews it appeared that there were major differences in the organisation of central services in the different boards. Appropriate interview schedules were developed from the draft questionnaires.

3.2 ALLOCATING COST DATA

3.2.1 Problem summary

Careful accounting for all expenditures is a normal function of administration. Finding data on costs was not, therefore, a problem. Rather our main task was to define a method for transforming available data into formats suitable for analysis. Three problems had to be solved: standardizing the financial and service years, defining the summary categories to be used for analysis and specifying conventions for allocating costs between French and English sectors. With this framework defined, our staff visited school boards and, working closely with their accounting departments, prepared detailed cost breakdowns. These were then corrected in the light of data gathered in other parts of the case studies. Two types of summary data were prepared: board level and school level. In the analysis, special schools for retarded children are shown as a separate board-level account. Since Roman Catholic separate school boards operate only elementary schools from public tax monies but neither secondary schools nor schools for the retarded, a single board level summary corresponds to the bulk of each board's operations. Public school boards maintain separate sets of accounts for elementary and secondary schools; therefore board level accounts were prepared separately for elementary and secondary schools. Thus, each public board appears as "three" school boards in the financial data - one an elementary school board, one secondary and one for the retarded. After initial summaries were prepared for each board, the data was discussed with board officials; as a result, various discrepancies and errors were uncovered. (The origin of "errors" was very diverse, ranging from inaccurate source data to misallocation of certain items.) The summaries were also scrutinized in the light of data gathered on services, and further corrections made. This data was then converted to machine-readable format for analysis.

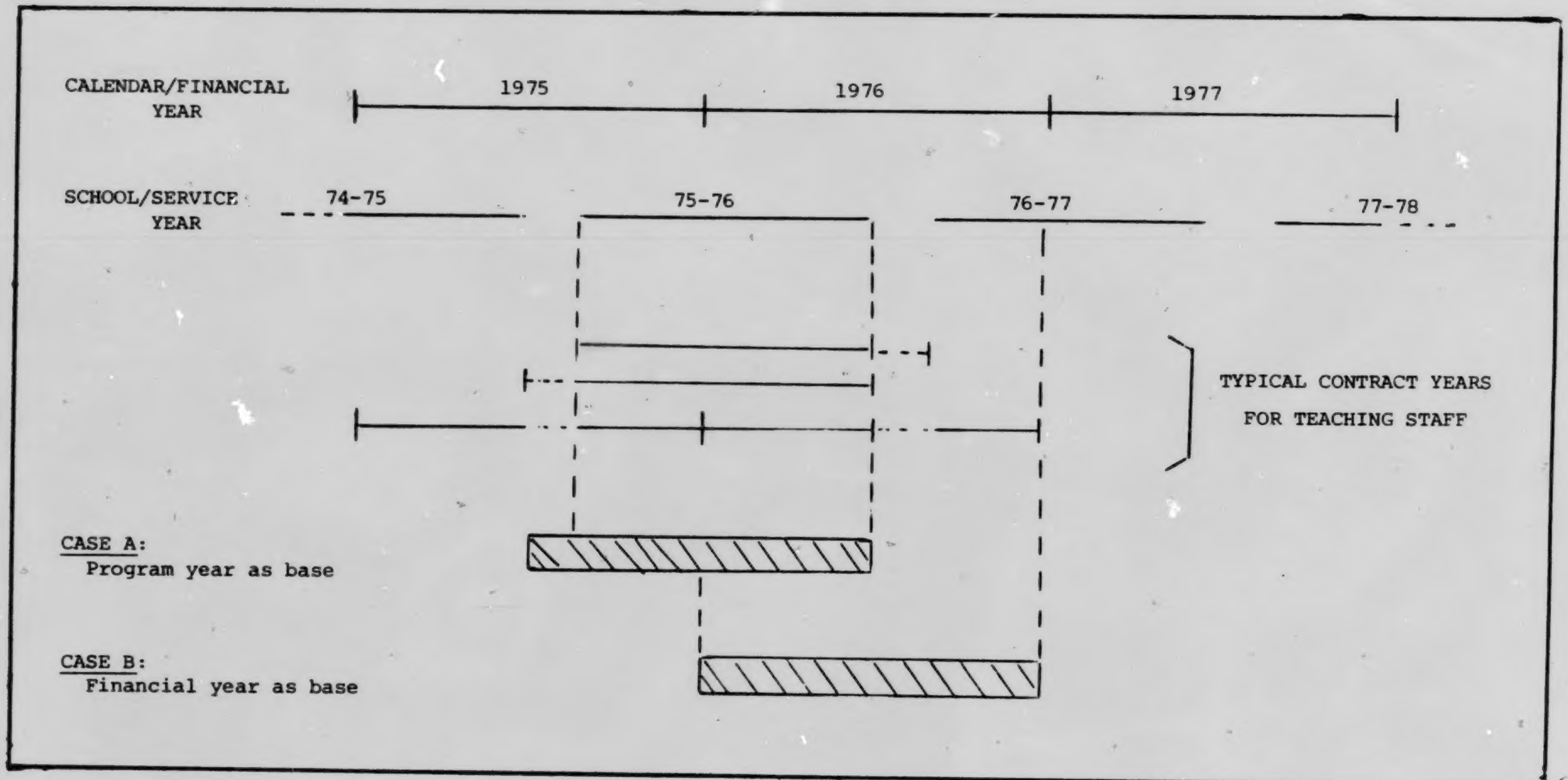
3.2.2 Standardizing the financial and service years

School boards use the calendar year as their basic time period for accounting. On the other hand, school services are provided primarily on the basis of a school year beginning in September of one financial year and ending in June of another; a few services, such as summer school and central board operations, continue for the remaining two months of the year. A problem was posed by the fact that the financial year and the school year do not coincide. For example, when discussing the costs of operating a given school, it is useful to be able to refer to such facts as pupil:teacher ratio; however, the numbers of pupils and teachers vary from one school year to the next. Thus, the financial year data refers to two different service levels.

A decision was taken to allocate costs to a single, comparable program or service year for all boards. This year extended from July 1, 1975, to June 30, 1976, the latest period for which full financial data was available in time for the study. The implications of the decision can be understood by reference to Figure II 1. Case A shows a typical program year (1975-76). From inspection it will be seen that cost data for the year come from two separate sets of financial accounts, one for the financial year 1975, the other for 1976. Providing that costs can be derived from the accounts, the result will be a single set of costs associated with a single level of service (ignoring minor variations during the school year).

The approach adopted involves a certain difficulty, in that some

FIGURE II.1: A COMPARISON OF FINANCIAL AND SERVICE YEARS


CALENDAR/FINANCIAL YEAR
1975
1976
1977
SCHOOL/SERVICE YEAR
74-75
75-76
76-77
77-78
TYPICAL CONTRACT YEARS FOR TEACHING STAFF
CASE A:
Program year as base
CASE B:
Financial year as base

grounds must be used for allocating a specific proportion of costs from each financial year to the service year. Some of the allocations are, inevitably, subject to doubt and perhaps debate. The alternative to this approach --- using the calendar or financial year as a basis of analysis --- was considered but rejected, because it raised issues and problems that were not only subject to debate: they might be completely unsolvable. This is illustrated by Case B in the figure. As the calendar year overlaps two "service years", one would have to provide costs of two different sets of services for each board (by definition, a change of service always occurs). This would automatically have multiplied by two the amount of service/cost data for each board. Furthermore, one would have to gather data on both the year preceding and the year following the selected financial year in order to determine accurately cost allocations for some items. In other words, one would have to make defensible assessments of how budgets should be divided up over a three-year financial period. The costed services would be for two different levels of service and should be related to cost allocations involving, implicitly, three financial years.

The procedure selected simplified enormously one aspect of allocations, constituting the bulk of the costs encountered --- teachers' salaries. The contracts of teaching staff in most school boards (though not all) are based on the school program year. However, some contracts go from July to June, some from September to August. Since the actual services rendered always fall within the same September to June time frame, such costs are simply collected on the basis of contract year and allocated to the service year, independently of start and finish dates of contracts. (Although not encountered in our study, in cases where the financial year was used for teaching contracts, a proration of salaries based upon the number of months served could have been used, i.e. four months from the 1975 contract and six months from the 1976 one, corresponding to .4 and .6 of the total of each contractual salary for a ten-month teaching year.)

The selection of the period July to June, rather than September to August, as the service year, resulted from simple expediency. It takes a certain number of days or weeks to close accounts and come up with final expenditure figures. By choosing the July-June option, we were able to deal with firm expenditure data in all boards by, at the latest, mid-August 1976. Had we chosen the alternative, data would not have been available until mid-autumn, too late for the study.

3.2.3 Defining the summary categories

Board accounting systems use the Uniform Code of Accounts approved by the Government of Ontario. In order to obtain meaningful data, it was necessary to reduce the very large number of categories from the code to a few items manageable for the purposes of the study. At one point consideration was given to recoding using the service classification system presented in the previous section (II.2.3.3); this idea was rejected for a number of reasons, the most important being that corresponding detail for service data

TABLE II.6: EXPENDITURE CATEGORIES USED FOR PREPARING BOARD-LEVEL SUMMARIES

1. General business expenditures
   - FLAC
   - Business administration
   - Computer services
     - TOTAL GENERAL BUSINESS EXPENDITURES
2. Instruction
   - Salaries and wages:
     - Principals
     - Instructional Administration
     - School Office Administration
     - Day School Regular Courses
     - Supply Teachers
     - Special Education
     - Special Courses
     - Adult Education
   - Fringe Benefits
   - Travel Expenses
   - Personnel Training
     - SUB-TOTAL
   - Supplies:
     - General Supplies and Services
     - Instructional Administration
     - School Office Administration
     - Day School Regular
     - Special Education
     - Adult Education
     - Special Courses
     - Driver Education
     - SUB-TOTAL
   - Textbooks
   - Replacements
   - Capital Expenditures
   - Rentals
   - Fees and Contractual Services
   - Other Expenditures
   - Special Projects
     - SUB-TOTAL
     - TOTAL INSTRUCTIONAL EXPENDITURES
3. Educational Services
   - Salaries and Wages:
     - Audio-visual
     - Guidance and Counselling
     - Library
     - Psychological
   - Fringe Benefits
   - Travel
   - Personnel Training
     - SUB-TOTAL
   - Supplies:
     - General Supplies and Services
     - Audio-visual
     - Guidance and Counselling
     - Library - Books
     - Psychological
     - SUB-TOTAL
   - Replacements
   - Capital Expenditures
   - Rentals
   - Fees and Contractual Services
     - SUB-TOTAL
     - TOTAL EDUCATIONAL SERVICES
4. Other Expenditure Categories
   - Attendance, Health & Food Services
   - Plant Operation
   - Plant Maintenance
   - Transportation
   - Tuition Fees
   - Capital Non-allocated
   - Other Operating
     - (Debt - Principal)
     - (Debt - Interest)
   - Total Debt
   - Non-operating Expenditures
   - Miscellaneous
   - Reserves
     - TOTAL OTHER EXPENDITURES

GRAND TOTAL ALL EXPENDITURES

would not be available from the study. In addition, it was felt that communication with board personnel would be much easier if all categories were kept in conformity with the outline and pattern of the Uniform code of accounts.

Different purposes were to be served by the different summaries. At the board level it was necessary to maintain a high level of detail in order to permit checking and rapid breakdowns; at the school level, the main items of concern were "ordinary expenditures" as defined in provincial grant regulations. The school-level data also included a line item for transportation costs, which are considered "extraordinary expenditures". The categories used for board-level summaries are presented in Table II.6; for school level summaries in Table II.7. In the following, we present explanations of line items that are not otherwise self-explanatory.

3.2.3.1 Line items: board-level data

a) FLAC: All expenditures, including items such as honoraria, fringe benefits, travel and supplies that are attributable to the French Language Advisory Committee. Note that this item only applies to boards operating secondary schools.

b) Business Administration: All expenditures, excluding FLAC, that are attributable to central business administration services of the board. Note that this item does not include Instructional Administration at the board level nor specific overheads for items such as plant maintenance listed under Other Expenditure Categories in Figure II.7.

c) Principals: Salaries of both principals and vice-principals are included in this line item.

d) Instructional Administration: The salaries of the director of education, superintendents and consultants, and their clerical staffs, are included in this line item.

e) School Office Administration: Salaries of school clerical staff are included in this line item.

f) Day School Regular Courses: All teachers' salaries, excepting supply teachers, special education teachers and teachers of special courses. School librarians and guidance counsellors are also included in this line item.

g) Special Education: Salaries of all special education teachers are included in this line item.

h) Special Courses: Salaries of all teachers who taught special courses such as summer school, driver education, etc.

i) Fringe Benefits, Travel and Personnel Training: Apply to all of the above instructional personnel.

j) Special Projects: Generally special, short-term, non-recurring projects. The category may include both salary and non-salary items. Examples of the types of activity that could be included in this item would be a special curriculum materials development project or portions of the Experience 75 Program.

k) Educational Services, Salaries: It is important to note that salaries shown under Guidance and Library refer to board-level personnel; those of school librarians and counsellors are shown under Regular Day School Courses.

l) Educational Services, Supplies: It should be noted that library books and audio-visual materials purchased by the school are shown in this category and not under Instructional Supplies.

The line items for Other Expenditure Categories (Attendance, Health and Food Services through to Reserves) are each reduced to a single line item to facilitate the presentation of data for reporting purposes.

3.2.3.2 Line items: school-level data

The financial data presented for each school are a condensation of the same line items presented for each board showing the expenditures for each school. In compiling the data at the school level, line items such as Capital, Debt and Non-Operating Expenditures, which are not part of Ordinary Expenditures, were not included in the calculations. Thus, the school-level data show Total Ordinary Expenditure per pupil by school. As transportation is an important variable, transportation costs are shown for each school but these costs are not included as part of Ordinary Expenditures.

a) Business Administration: The sum of expenditures shown as FLAC, Business Administration and Computer Services in the board-level data.

b) Instructional Salaries and Wages: The sum of all instructional salaries, travel and benefits shown in the board-level data.

c) Instructional Supplies: The sum of all supplies, including text-books, shown in the board-level data.

d) Instructional, Other: The sum of remaining instructional expenditures, excluding capital.

that the financial reporting format for the study would have to be based on the Uniform Code of Accounts. All forms prepared for financial data gathering follow the format outlined in the code. Since we did not require all available detail, in many cases a category having several line items in the code appears as a single line item in our summary of expenditures at both the board and school levels. The financial data were grouped into more compact categories for two reasons. Firstly, the data at the board level can be presented in a tabular format that contains all the necessary details without being so bulky as to make reading difficult. In reporting the financial data at the school level, the number of categories is further reduced, again to simplify presentation. Secondly, the reduction simplifies the analysis of the data by decreasing the number of variables in categories not essential to the purpose of the study.

At the board level, costs in the categories of Instruction and Educational Services were retained in considerable detail because it was felt that the greatest differentials for the purposes of the study would be found in these two categories. In reporting the data at the school level, Instruction is reported in more detail than the other categories because it is here that the most significant between-school differentials appear.

Once data collection was begun, we noted that there were minor discrepancies in the categories in which certain expenditures were reported by various boards. In all such cases, we shifted the expenditure to the category we deemed most suitable, so that accounting procedures would be uniform for all the boards in the sample.

For reasons presented above it was decided to examine a complete school year, rather than a financial year. In order to obtain data for the school year 1 July 1975 - 30 June 1976, financial data had to be collected for three separate dates: 30 June 1975, 31 December 1975 and 30 June 1976.

In addition, most of the boards under study made changes in their accounting procedures from the 1975 to the 1976 fiscal year. These ranged from a minor change in accounting for fringe benefits in one board, to an almost complete change of system in another. Despite the difficulty in obtaining equivalent data for the two fiscal years under study, the help and co-operation of the accounting staffs of the boards concerned made it possible to resolve these problems and report data for the two years in a consistent fashion.

3.2.4.2 Data collection and allocation

The first step in data collection was to obtain all the expenditure data for each school in a given board. The amount of detail available at the school level varied considerably from board to board. In all cases, we were able to obtain accurate expenditures for teaching salaries, office and custodial salaries, instructional supplies including textbooks, library books and audio-visual supplies. Once all the expenditures of the school had been obtained, then the expenditures attributable to all French language schools were totalled, as were those attributable to English language schools.

After obtaining the school level expenditures, then the total expenditures for the board were obtained. While we were gathering board-level costs, we tried to determine what expenditures could be allocated to the French or English sectors. All allocatable expenditures were assigned to the appropriate language sector.

Business Administration costs can be used as an example to clarify the allocations performed. The French Language Advisory Committee and all expenditures attributable to it were allocated to the French sector. As the remaining Business Administration expenditures were deemed to serve the French and English sectors equally, they were allocated to each sector on a per-pupil basis. The same general two-step allocation was done for all line items at the board level: first remove all clearly allocatable items, then prorate the remainder.

After all board-level costs had been determined and allocated to the appropriate language sector, these costs were then allocated to each individual school - usually on a per-pupil basis within sector. In this way, all expenditures made by the board were shifted to the school level, and the sum total of expenditures for all schools equals the total expenditures for the board.

Instructional supplies can be used as an example to illustrate how the total amount shown for any line item at the school level was determined. The amount shown for Instructional Supplies for a given school is the sum of: the actual expenditure made by the school, its share of the board-level expenditures for supplies of direct benefit to its language sector and its share of expenditures for supplies that benefit all schools independently of language.

In general, line items such as Business Administration, Computer Services, Plant Maintenance, Tuition Fees, Capital Non-Allocatable, Debt, Non-Operating Expenditures and Reserves were allocated by actual expenditure, where possible, to the appropriate language sector and then to each school within the sector on a per-pupil basis. No attempt was made to determine the actual expenditure in each school in these categories.

Plant Operation costs for each school were usually calculated by taking the sum of the custodians' salaries in the school plus an overhead figure that included administrative salaries and operating supplies calculated from board expenditures.

The calculation of Transportation costs at the school level proved to be a particular problem. In the early stages of the study, we thought that we could obtain accurate transportation costs for each school. Once we began to examine the complex transportation network that exists in the boards, we soon determined that to arrive at truly accurate transportation costs for each school was beyond the means of our project and could, in fact, form a study on its own. We determined that the fairest way to allocate transportation costs to each school would be to calculate a cost per pupil transported for the board and to multiply this cost by the number of pupils transported in each school. Thus the costs of transportation for each school reflect more accurately the percentage of its population transported than the actual expenditure for the students in the school.

Mixed Secondary Schools posed a number of special problems and special procedures were developed to deal with these circumstances. Whereas it was straightforward to bring central costs down to the school level, all manner of problems arose when we attempted to allocate instructional expenditures to the appropriate language sector within the school. Because the accounting data alone was not a sufficient basis for allocation, it was necessary to interview at least the principal of each mixed school. The two major areas of difficulty were instructional salaries and supplies.

In the allocation of instructional salaries, the first problem is how to allocate the principals' and vice-principals' time. This allocation was determined by interviewing the superintendents and the principals themselves to see how they perceived the division of their time. The second and most difficult problem is the allocation of teachers' salaries to each language sector. It was relatively easy to determine the cost of instruction given in French and the cost of instruction given in English. The only complicating factor was that in order to check the accuracy of our French/English allocation of teachers' salaries, we used three data sources: school board payroll officers, the September Reports, and interviews with superintendents and principals. In doing these cross-checks, a number of discrepancies in the data were found and they had to be checked out with the principal and the superintendent. Allocation of teachers' salaries to French or English as the language of instruction does not, however, represent a true picture of instructional costs in a mixed-language school. It is quite usual for a Francophone student to take at least some of his credits in English (the reverse is exceptional). Since it was quite evident that this was occurring on a large scale, a way had to be found to allocate a portion of the English costs to the French sector to account for these credits taken in English. This was done by calculating the average number of credits per student within the school; then the cost of English credits required to bring the Francophone students up to the average number of credits per student was allocated to the French sector of the school.

The allocation of instructional supplies in mixed schools also proved to be a problem. Even searching out the original order documents often failed to show which language sector, if any, an expenditure belonged to. What supply items could be traced to a particular language sector were allocated to that sector. In allocating supply expenditures that could not be traced to a particular language sector, we adjusted the allocations in accordance with the board policy on expenditures. That is, if the board allowed an additional amount for French language materials, this amount was reflected in the allocation. By following these procedures, we arrived at an equitable and quite accurate way of allocating costs to each language sector within a mixed school.

To summarize, the general procedure followed in allocating expenditures to each school within a language sector was first to obtain all expenditures directly attributable to the school, then the board level expenditures were allocated to each language sector. In allocating board level expenditures, the actual expenditures were used where possible: when this was not possible, allocations were made on the basis of information received during our interviews with board personnel. The board level expenditures were then allocated to each school on a per-pupil basis. In this way we attempted to relate all board expenditures to the appropriate language sector and school in a rational fashion. The system was intended to ensure that the analysis of variables to determine differential costs between schools and language sectors was based on the most accurate information available.

FOOTNOTES TO SECTION II

1. Cf. bibliography of this report.

2. The techniques of case studies are based on an emerging but already well-defined set of methodologies. For an example of application see Lutz and Iannaccone 1969. Our methodology borrows from techniques applied in system analysis (cf. Hall 1962; Hare Jr. 1967).

3. Cf. Complementary Study Reports I, of this project.

4. Cf. D'Costa 1972; Allaire and Toulouse 1973.

5. The thesis by Carlton (1967) remains the most detailed analysis of this phenomenon in Ontario.

6. Cf. studies cited by Huberman 1973.

7. Cf. Complementary Study Reports IV, of this project.

8. The terminology used here is borrowed from the analysis of Jencks 1972 (p.75) in which "equal opportunity" is distinguished from "compensatory opportunity".

9. Cf. The analysis of research on class size, Chap.4 in Ryan and Greenfield 1975.

SECTION III: COMPARATIVE ANALYSIS OF COSTS

1. THE RATIONALE

1.1 THE STAGES OF ANALYSIS

The comparative analysis of costs presented in this section is based upon the general frameworks of analysis presented in the previous two sections. At this point, it is important to recall the relevant portions of the background as they relate to this specific analysis:

a) The case study methodology does not make it possible to draw conclusions about the province as a whole. The reasons for this are numerous, including the fact that the "sample" of boards is not random nor can it be proven to be representative. The number of schools and boards analysed is also too small, in some cases, for use of statistical analysis techniques required to draw certain types of conclusions.

b) The basic item of analysis is a disaggregated set of costs related to individual schools. However, these data include all relevant overheads in the boards, so that one is really examining the totality of each board's expenditure for the period concerned. This is more than a fine point. If, for example, one notices that the per-pupil costs are higher for a certain language group, the costs reflect not only what is going on in the schools themselves but also the support services offered by the board outside the school.

c) The stages in the analysis were derived step by step in the course of the study. The analysis of intermediate results of one stage dictated the type of analysis done at the next. The outline of the data in this section follows generally the logic derived in this way.

The first step in the analysis is to compare the school-level data separately for elementary and secondary boards. As mentioned in an earlier discussion, the variations observed can be taken to reflect two sets of factors which tend to cancel each other out:

- the levelling influence of board (and provincial) allocation policies, and
- differences in "need" resulting from different types of schools, different clienteles and so forth.

Our analysis began with the assumption that a certain amount of variation would be found, in spite of the levelling influences. The assumption was based upon the mechanism of provincial grants to school boards. Depending upon how one viewed the process, the grant system for French language instruction might be considered in one of two ways:

a) As a reactive process: Boards encounter actual needs at the school level which require higher levels of expenditure; these boards then seek additional funding to cover their expenses.

b) As a stimulation process: Provincial authorities recognize unmet educational needs among Franco-Ontarians and therefore provide additional grants that enable boards to provide new services.

In either case, one would expect to observe a higher level of expenditure associated with the operation of schools serving the minority group in whose favour the grants are given.

The next stage is to try to understand the patterns found in the school-level data. We have done this by analysing the case studies to determine the types of allocation decisions made by school boards and the extent to which these decisions reflect the assumptions in the grant system. In turn, the results of this analysis lead one to confront the problem of explaining the allocation systems themselves. Obviously, we could not do general analysis of school board allocation procedures in the province. Instead, we addressed the problem in the light of historical and situational factors encountered in the case studies and, in particular, the prevailing psychology of the persons involved; a final section employs different logical systems to analyse several prototype situations in which new services have been created for Francophones during the recent past.

The entire section concerning the comparative analysis of costs represents a stage in our analysis, leading on to the section on areas of unmet service needs. The logic behind this is clear: Since the allocation patterns within boards show a certain levelling influence, the question may legitimately be asked if this is simply because the needs of Franco-Ontarians are being adequately met by the existing allocations. Our case studies have revealed certain areas where, in our opinion, there are unmet educational needs. These are outlined, therefore, in Section IV. In Section V we deal with the implications of the study and draw tentative conclusions.

1.2 THE SAMPLE

1.2.1 Confidentiality

The topic of the study is highly polemical. The methodology of case studies is rather imprecise and does not permit final judgments. For these reasons, we consider it necessary that, at least for a time, the participating boards in our study remain anonymous. The detailed case studies, of which copies will be furnished to officials of the school boards concerned, may eventually be published later. However, in this comparative study, we are extremely aware of the researcher's responsibility to guard against the misuse of research information to the detriment of those who participate. Every effort has been made, therefore, to present the data in ways which will render if difficult to identify boards, schools and individuals. Though this may complicate slightly the task of the reader, we feel the effort is worthwhile. Even if some of the data are rendered public, not all can ever be: Numerous individuals are involved and information affecting them personally cannot be published.

The description of the sample is given below in a fashion intended to maintain confidentiality while, at the same time, giving the reader an understanding sufficient to judge for himself or herself whether the boards were properly selected and to assess the relevance of the conclusions. Obviously, since numerous persons are aware of the conduct of the study, it is possible that they will be able to piece together the identities of some of the boards. However, we trust that the more knowledgeable the persons, the more responsibly they will use this knowledge.

1.2.2 Data coding conventions for confidentiality

School boards are referred to by code letters: the seven elementary school boards by the letters A through G, the four secondary boards by the letters W, X, Y and Z. In this comparative report it is not necessary to refer to individual elementary schools, therefore no codes have been chosen. Secondary schools are referred to by a two-letter code, of which the second letter is either E, F or M to indicate that the schools are English, French and Mixed, respectively.

Special techniques have been necessary to ensure confidentiality in presenting tabular data. The first is simply that some data are presented not in their exact form but as a "range". For example, a school with an enrolment of 1,122 students might be shown as having an enrolment in the range 1,100-1,150. The ranges are chosen in such a way that there are other schools or school boards which would also satisfy the criteria of range as well as those in our sample. A second technique is "scaling" -- dividing figures by some common factor to reduce them to a comparable base; where this is done, it is specifically explained. (It is also done for simplification of data analysis in one or two points, quite independently from questions of confidentiality.) Another technique has been not to present several sets of data in the same table in such a way that they can be related to each other -- i.e, data on boards are given separately from data on secondary schools. Otherwise, with a few of the major board characteristics and a few items of information on schools, one could eventually eliminate alternatives and proceed to identify the board and schools. Because of the great length of discussion of mixed secondary schools, it has been necessary to present data on secondary schools in such a way that each table is absolutely accurate but, from table to table, the school code changes in a random fashion: school AM in one table is not the same as school AM in another.

Perhaps the most interesting point to note is that the basic financial data for inter-board comparisons can be reported without any special precautions: Owing to the choice of program year as a base of analysis, the data presented is not comparable with any data available from other sources, including the boards themselves.

1.2.3. Criteria for selection

The main criteria for selection of boards were: proportions of French and English speakers in the region, general board size, and general geographic location. As will be recalled, the intent was, as far as possible, to select all boards within a given geographical area conforming to particular population characteristics specified in the contract: "...small and medium enrolment Francophone populations at both the elementary and secondary levels in both homogeneous and mixed situations". The exact interpretation of these criteria was based on discussions with Ministry of Education officials, with whose help the sample was selected. As a result, a total of eleven boards was chosen, located in four areas of the province.

1.2.4. Description of sample

The boards represent a broad cross-section of board types found in the province that operate French language instructional units. Their major characteristics are as follows:

1. Geographical location and population characteristics of area: The boards are located in four distinct geographical areas, two northern and two southern. The population proportions by area have been estimated on the basis of the total proportion of enrolments in all school boards operated within the area and are shown in Table III.1. It will be noted that two areas (Northern 1 and Southern 2) correspond to "small enrolment" situations of less than 3,000 pupils enrolled in Grades K-13; the other two areas (Northern 2 and Southern 1) have enrolments of 7,000 to 9,000 corresponding to "medium enrolment situations". The criterion of "mixed situations" appears to be covered by the estimated distribution of Francophones, ranging from a figure of less than 10 per cent in one area to between 40 and 50 per cent

TABLE III .1

POPULATION PROPORTIONS BY AREA SAMPLED

Area	Francophones as Percentage of Population[1]	Total Enrolments of Francophones K-13
Northern 1	40-50%	2,500-3,000
Northern 2	30-40%	7,000-8,000
Southern 1	30-40%	8,000-9,000
Southern 2	0-10%	2,000-2,500

Source: Table 7.20, *Education Statistics Ontario, 1975*,

[1] Estimated on basis of total enrolled student population within area, grades K-13.

TABLE III . 2

POPULATION PROPORTIONS BY BOARD

Elementary Boards	Total Enrolment in Board	Francophones as % of Enrolment
Northern Boards		
B	2,000- 2,500	80-90
D	1,500- 2,000	-
F	6,000- 7,000	-
G	8,000- 9,000	50-60
Southern Boards		
A	9,000-10,000	60-70
C	20,000-25,000	0-10
E	7,000- 8,000	-
Secondary Boards		
W	1,500- 2,000	40-50
X	10,000-15,000	0-10
Y	7,000- 8,000	30-40
Z	9,000-10,000	20-30

in that with the highest population density. In terms of the province as a whole, the sample included over 20,000 Francophone pupils, or approximately 20 per cent of the entire Francophone enrolment in elementary and secondary schools. In 1975 the provincial enrolment totals were: elementary, 77,425; secondary, 31,392; total 108,816.

2. Population proportions by board: Table III.2 provides an alternative way of viewing the population proportions indicated for the geographical areas. It will be noted that the secondary boards have population proportions roughly corresponding to those in the geographic areas summarized in Table III.1; this reflects the fact that the secondary school boards ordinarily enrol the totality of pupils within their geographic area. By contrast, the elementary boards generally have a far wider range of population proportions -- either no Francophones at all or a percentage generally higher than for the area as a whole. This results from the tendency of Francophones to enrol in Roman Catholic separate school boards; as a result, even in heavily Francophone areas of the province, it is not uncommon for the public elementary board to have virtually no Francophones enrolled in French language instructional units. Thus, in one area there is often at the elementary level what one might call a "bilingual" (separate) school board and a "unilingual" (public) board. The gravitation of Francophones to the separate school system causes concentrations to arise far in excess of those found in the area as a whole. In this sense, two of the boards may be considered to fulfill the requirements for studying "homogeneous situations" -- Board A with 60 to 70 per cent Francophone enrolments and Board B with 80 to 90 per cent. Table III.3 shows the boards distributed in the light of the sampling criteria related to population proportions. If one defines four types of situation: homogeneous Anglophone, low-enrolment Francophone,

TABLE III .3

DISTRIBUTION OF BOARDS BY SAMPLING CRITERION OF POPULATION PROPORTION

Situation	Francophone Percentage of Enrolment	Boards	
		Code	Total
Homogeneous Anglophone	-	D, E, F	3
Low enrollment Francophone	0-30%	C, X, Z	3
Medium enrollment Francophone	30-60%	G, W, Y	3
Quasi homogeneous Francophone	60-90%	A, B	2

TABLE III . 4

DISTRIBUTION OF BOARDS IN SAMPLE BY LEVEL, TYPE, GOVERNANCE AFFILIATION

Level	TYPE				AFFILIATION		
	County	District	City	Total	Public Boards	RC Separate Boards	Total
Elementary	4	3	-	7	4	3	7
Secondary	2	2	-	4	4	-	4
TOTAL	6	5	-	11	8	3	11

medium-enrolment Francophone and quasi-homogeneous Francophone, then the boards are very evenly distributed: 3,3,3,2 respectively.

3. Organizational characteristics of the boards: Table III.4 shows the distribution of the selected boards in terms of general organizational characteristics. Six of the boards were organized within counties, five in districts; the sample did not include a board classified as a city board. (In the province, there are five metropolitan areas whose boards are so classified: Windsor, Ottawa, London, Hamilton and Metropolitan Toronto.) Eight public boards of education and three Roman Catholic separate school boards were included in the sample. Seven are elementary boards, four secondary boards.

4. Operational characteristics of boards: The general size and operational characteristics of the boards may be judged, in part, by examining the distributions of schools, pupils, teachers and costs among them in comparison with province-wide averages.

a) The distribution of schools and average enrolment sizes in each school are shown for each of the elementary boards in Table III.5. The average per-school enrolment for the whole sample is approximately 225, less than the provincial average of 346 for the same year. Table III.6 is a simple cross-tabulation of the same data, showing that the median board is in the enrolment interval 201-225 pupils per school. In comparison with enrolment intervals for the province as a whole (Table III.7), the average for all boards is smaller than either the provincial average or the median (300-349), corresponding to the first (lowest) quartile of school sizes for the province. The public school boards in the sample have a slightly smaller average school size than the Roman Catholic separate school boards (220 and 235 respectively),

TABLE III .5

DISTRIBUTION OF SCHOOLS AND AVERAGE ENROLMENT SIZES BY BOARD - ELEMENTARY BOARDS OF SAMPLE

Board	Enrolment Range	Nos. of Schools		Total	Average Enrolment Per School
		E	F		
A	9,000-10,000	15-20	25-30	40- 45	201-225
B	2,000- 2,500	1- 5	5-10	10- 15	201-225
C	20,000-25,000	80-90	1- 5	85- 95	226-250
D	1,500- 2,000	5-10	-	5- 10	176-200
E	7,000- 8,000	40-45	-	40- 45	176-200
F	6,000- 7,000	20-25	-	20- 25	251-275
G	8,000- 9,000	10-15	20-25	30- 35	276-300
Total Sample	55,000-60,000	-	-	240-250	approx. 225
Public Boards	35,000-40,000	-	-	160-170	approx. 220
RC Separate Boards	15,000-20,000	-	-	80- 90	approx. 235

Source: Table 7.20, Education Statistics Ontario, 1975.

TABLE III .6

DISTRIBUTION OF BOARDS OF SAMPLE BY AVERAGE ENROLMENT INTERVAL FOR ELEMENTARY SCHOOLS

Enrolment Interval	Numbers	Quartile in province[1]
176-200	2	1st
201-225	2	1st
226-250	1	Upper 1st or lower 2nd
251-275	1	2nd
276-300	1	2nd

[1] Estimated from Table 4.20, Education Statistics Ontario, 1975.

a reversal of the general provincial trend (359 for public boards, 320 for separate boards). Unfortunately, for the secondary school boards a corresponding breakdown cannot be furnished without revealing the identity of the boards. Table III.8 shows average enrolments for the sample as a whole and for the province in 1975. The average size in the sample is slightly less than that of the province. Of the secondary schools in the sample, nine were mixed, four French and the remainder English. The mixed and French secondary schools are described at length in later sections of this report. Inspection of the data revealed no systematic trend towards smaller schools in the north for either elementary or secondary schools.

b) The size of teaching staffs and corresponding pupil:teacher ratios are shown for elementary boards in Table III.9 and for secondary boards in Table III.10. For the elementary boards, one observes a relatively large variation, the lowest pupil:teacher ratio in Board A (18.25-18.49) being approximately 25 per cent lower than the highest in Boards E and G (23.00-23.24). The size of this difference led us to investigate the matter further, using the full-time equivalent of all teachers employed as a basis for calculation; this led to calculation of an adjusted pupil:teacher ratio more accurately reflecting board resource utilization. The result considerably lowered the ratios and narrowed the range slightly (minimum of approximately 17.5, maximum of 22.0). An inspection of the data revealed no apparent systematic differences between northern and southern boards, or between

TABLE III.7

AVERAGE ENROLMENTS IN ELEMENTARY SCHOOLS IN ONTARIO, 1975

Board Type	Average Enrolment	Median Average Found in Enrolment Interval
All Boards	346	300-349
Public Boards	359	300-349
RCSS Boards	320	250-299

Source: Table 4.20, Education Statistics Ontario, 1975.

TABLE III.8

AVERAGE ENROLMENTS IN SECONDARY SCHOOLS IN SAMPLE AND IN ONTARIO, 1975

	Total Enrolment	Schools	Average Size
Sample	30,000-35,000	30-35	approx. 940
Province	605,160	615	984

Source: Tables 4.20 and 7.20, Eduation Statistics Ontario, 1975.

separate and public; taken together the southern boards had a marginally lower crude pupil:teacher ratio than the northern boards; the sample as a whole had a ratio of 22.7 as compared to 23.9 for the province. As can be seen from Table III.10, the range of differences in pupil:teacher ratios is much smaller at the secondary level. Since fewer part-time teachers are used in secondary schools, the adjusted pupil: teacher ratios, using the full-time equivalent of all teachers employed, was only slightly different from the crude measures. The boards in the sample had a slightly lower crude pupil: teacher ratio than the province as a whole -- 17.1 as compared to 17.4.

c) The financial operations of the boards are discussed at length in the remainder of this section. Nevertheless, it may be useful to get an overview of how expenditure levels in the sample boards relate to those in the rest of the province. In order to assess this, we have referred to the document: "Survey of School Board Per Pupil Expenditure - 1976 estimates", issued by the Ministry of Education on 31 November 1976 (1976:B22). The data are based on 1975 board financial statements and 1976 estimates. They are tabulated separately for elementary and secondary boards, each tabulation being broken into three groupings of board type: counties, districts and defined cities. A general measure of expenditures on educational services as a whole within a board is provided by the figures for "current cost of operations", which include items such as instructional salaries, business administration, educational services and other standard categories used for board financial reporting; they exclude items such as capital

TABLE III.9

ENROLMENTS, TEACHERS AND "CRUDE" PUPIL:TEACHER RATIOS IN ELEMENTARY BOARDS OF THE SAMPLE

Board	Enrolment	Full-Time Teachers	Crude P/T/R[1]
A	9,000-10,000	500- 525	18.25-18.49
B	2,000- 2,500	100- 125	19.50-19.74
C	20,000-25,000	875- 900	24.00-24.24
D	1,500- 2,000	75- 100	23.75-23.99
E	7,000- 8,000	325- 350	23.00-23.24
F	6,000- 7,000	250- 275	23.50-23.74
G	9,000-10,000	375- 400	24.00-24.24
Sample: All	55,000-60,000	2,500-2,600	approx. 22.7
Sample: Northern Boards	19,000-20,000	825- 850	approx. 23.4
Sample: Southern Boards	35,000-40,000	1,700-1,800	approx. 22.7
Province	1,389,478	58,167	23.9

Source: Tables 4.14(b) and 7.20, Education Statistics Ontario, 1975.

[1] "Crude" pupil:teacher ratio is defined as head count enrolment over number of full-time teachers.

TABLE III.10

ENROLMENTS, TEACHERS AND "CRUDE" PUPIL:TEACHER RATIOS IN SECONDARY BOARDS OF THE SAMPLE

Board	Enrolment	Full-Time Teachers	Crude P/T/R[1]
W	1,500- 2,000	100- 125	16.00-16.25
X	10,000-15,000	825- 850	17.00-17.25
Y	7,000- 8,000	425- 450	17.25-17.50
Z	9,000-10,000	525- 550	16.75-17.00
Sample	30,000-35,000	1,900- 200	approx. 17.1
Province	605,160	34,826	17.4

Source: Tables 4.15 and 7.20, Education Statistics Ontario, 1975.

[1] See note on Table III, 9.

expenditures, transportation and debt charges. Table III.11 shows for each board in the sample its approximate position in relation to other boards of similar type as regards current cost of operations. Thus, if one examines Board C of the sample, it will be discovered that it is one of 43 elementary school boards organized on a county basis; the range of current cost of operations within those counties was from $956 per pupil in the board of least expenditure to $1,256 in the board of greatest expenditure; out of the boards in this class, Board C was in the third quartile: that is, at least two quarters of the boards had a lower expenditure and one quarter had a higher one; the range of expenditures of boards in the third quartile shows that the board expended between a minimum of $1,115 and a maximum of $1,145 per pupil for current costs of operations. Let us now examine the general characteristics of the sample.

The elementary county boards of the sample are considerably above average in expenditures per pupil -- one in the third quartile and two in the fourth. The elementary district boards, on the other hand, present one board from each of the four quartiles of the distribution. (Defined cities are reported, even though none were in the sample.) The secondary boards are all above average expenditure, with one district board in the third quartile and all the others in the fourth quartile of their respective types. For persons accustomed to judging boards in terms of the gross size of budgets for current operations, Table III.12 provides a very rough idea of the general budget sizes related to the sample boards; unfortunately,

TABLE III .11

CURRENT COST OF OPERATIONS IN BOARDS SAMPLED IN COMPARISON WITH OTHER BOARDS OF SIMILAR TYPE: 1976 ESTIMATES

ONTARIO				SAMPLE		
Board[1]	N	Range of C. Cost of Op.		Board[2]	Quartile Within Class	Approximate Quartile Range-$
		Min.	Max.			
Elem. Counties	43	$ 950	$1,256	C	3	1,115-1,145
				A	4	1,146-1,256
				E	4	1,146-1,256
Elem. Districts	47	$1,100	$1,523	G	1	1,100-1,199
				F	2	1,200-1,269
				D	3	1,270-1,299
				B	4	1,300-1,523
Elem. Defined Cities	8	$1,184	$1,565	-	-	-
Sec. Counties	38	$1,482	$1,941	X	4	1,725-1,941
				Z	4	1,725-1,941
Sec. Districts	28	$1,711	$2,117	Y	3	1,905-1,989
				W	4	1,990-2,117
Sec. Defined Cities	5	$1,852	$2,078	-	-	-

Source: Ministry of Education,
Survey of School Board Per Pupil Expenditure -
1976 Estimates, Memorandum 1976: B22, 1976 11 30.

[1] Board types are those used for Ministry of Education statistical reporting: counties, districts and defined cities (Windsor, Ottawa, London, Hamilton, Metropolitan Toronto).

[2] Within each type of board, the boards of the sample are arranged in sequence from lowest to highest cost.

no further detail can be reported in terms of this data source without revealing board identities. These gross estimates suggest that three boards operated with budgets of less than $5 million, two between $5 million and $10 million, four between $10 million and $20 million and two between $20 million and $30 million.

5. Summary of sample characteristics: It would appear that, in many respects, the sample boards represent a reasonable cross-section from which to obtain data for study. As a group, they:

- are distributed almost evenly between northern and southern Ontario;
- provide a range of Francophone population concentrations going from zero to between 80 and 90 per cent;
- are almost evenly divided between county and district organizations;
- at elementary level are almost evenly divided between public and separate school boards;
- at secondary level have an average school size almost the same as the provincial average;
- have nearly average pupil:teacher ratios for both elementary and secondary levels;
- have budgets for current expenditures ranging from less than $5 million to between $20 million and $30 million.

The boards appear to present, as a group, only slight differences from the general profile of schools in the province:

- at the elementary level, schools are slightly smaller than average for the province;
- as a group, the boards have higher expenditures than average for the province on a per-pupil basis, though the elementary district boards are evenly distributed across the range of expenditures for the province.

TABLE III . 12

GROSS ESTIMATES OF ANNUAL EXPENDITURES ON CURRENT OPERATIONS BY BOARDS OF SAMPLE

Board	Mid-point of Enrolment Range[1] (A)	Mid-point of Quartile Range, per Pupil Current Cost of Operations[2] (B)	Gross Estimate of Annual Current Cost of Operations[3] ($ Millions)
A	9,500	1,201	11.4
B	2,250	1,411.5	3.2
C	22,500	1,130	25.4
D	1,750	1,284.5	2.2
E	7,500	1,201	9.0
F	6,500	1,234.5	8.0
G	9,500	1,149.5	10.9
W	1,750	2,053.5	3.6
X	12,500	1,833	22.9
Y	7,500	1,947	14.6
Z	9,500	1,833	17.4

[1] Enrolment ranges as reported in previous tables

[2] Mid-point of quantile ranges reported in Table III. 11.

[3] Gross estimate based on multiplying columns A and B, result rounded to nearest $100,000.

These differences are in the nature of variables which will be examined later to determine to what extent they are related to the problem of costs of French language instruction. For ease of reference in later discussion, Table III.13 summarizes major operational characteristics of elementary boards.

TABLE III . 13

REFERENCE LIST OF OPERATIONAL CHARACTERISTICS OF ELEMENTARY BOARDS IN SAMPLE

Board Code	North/ South	Enrolment total	% Francoph.	No. Schools	Average Enrolment/ School	Full-time teachers	Crude P/T/R	Gross Estimated Expenditures ($ millions)
A	S	9,000-10,000	60-70	40-45	201-225	500-525	18.25-18.49	11.4
B	N	2,000- 2,500	80-90	10-15	201-125	100-125	19.50-19.74	3.2
C	S	20,000-25,000	0-10	85-95	226-250	875-900	24.00-24.24	25.4
D	N	1,500- 2,000	-	5-10	176-200	75-100	23.75-23.99	2.2
E	S	7,000- 8,000	-	40-45	176-200	325-350	23.00-23.24	9.0
F	N	6,000- 7,000	-	20-25	251-275	250-275	23.50-23.74	8.0
G	N	8,000- 9,000	50-60	30-35	276-300	375-400	24.00-24.24	10.9

2. ELEMENTARY SCHOOL COSTS

2.1 DATA ANALYSED

The description of the boards in the previous sub-section gives an idea of the total sample used in the main case studies. The elementary school cost data are derived from slightly different sources than those in the sample as a whole. In one of the seven elementary boards, Board C, the proportion of the Francophones enrolled was so small as to render the gathering of cost data on all the schools extremely onerous; it would have increased the accuracy of knowledge of the English language schools without providing information on the French ones. For this reason, costs were calculated for all of the French language schools in the board and for a sample of more than 10 English language schools chosen with the assistance of board officials to be representative of the English language schools in the board.

The data in the elementary cost sample are made up as follows: In the four bilingual boards (Boards, A, B, C, G) data were gathered for all French language elementary schools, for all English language schools in three of the boards and for a sample of English schools in the fourth board. This yielded in all 60 French language elementary schools and 40 English language ones. In addition, data were obtained from three unilingual boards (Boards D, E, F) whose jurisdictions are coterminous with three of the bilingual boards; all 72 elementary schools in these boards were included. The total sample consists, therefore, of 60 French language elementary schools and 112 English language.

All costs were reduced to per-pupil amounts in the major categories: Instruction, broken down into Salaries and Wages, Supplies, and Other

Instructional Expenditure; Educational Services; Maintenance and Operation of Plant; and Other Operating Costs. These, together with Business Administration (which was not compared since most boards prorated these expenditures on a per-pupil basis to English and French schools), added up to Total Ordinary Expenditure. In the Extraordinary Expenditures category only Expenditure for Transportation was examined.

The analysis presented below begins with the most obvious factor, that of differences in language between boards. Contributory factors are then analysed. The following are the major factors considered:

- board differences between unilingual and bilingual boards
- school size and language
- relationships between location, size and board type
- staffing factors

2.2 UNILINGUAL AND BILINGUAL BOARDS

Table III.14 shows the distribution of the mean cost per pupil per school by expenditure item, board, and language of instruction for 1975-76. It will be noted from the last two headed columns that, of the 172 schools in the study, 72 were operated by unilingual English boards, 40 were English language schools operated by bilingual boards and 60 were French language schools operated by bilingual boards. (Throughout this discussion it is understood that "unilingual" refers only to the elementary panel.)

One notes that the average Total Ordinary Expenditure of the 72 English language schools operated by unilingual boards was $1,103, while that of the 40 English language schools operated by bilingual boards was $1,189 and that of the 60 French language schools was $1,229, the bilingual boards' costs being respectively 7.8% and 11.4% higher than those of the unilingual boards. Examination of the data for the individual boards shows that this relationship is not the same for all areas:

a) In Northern Area 1, unilingual Board D's costs are higher than those of bilingual Board B for both its English language and French language schools; in turn, the latter board's English language schools cost 9.6% more per pupil than do its French language schools.

b) In Southern Area 1, bilingual Board A's English language schools cost 4.2% more per pupil than did its French language schools.

c) In Southern Area 2, the average per-pupil cost of the sample of English language schools in Board C was .7% higher than that of its French language schools.

Thus the only area where the pattern is similar to that of the total sample is Northern Area 2, where the costs of bilingual Board G's English and French schools are respectively 3.9% and 15.3% higher than those of unilingual Board F.

Certainly this table gives no clear-cut indication that French schools cost more to operate than English schools operated by the same board. This may be seen, with respect to the bilingual boards, by examining the F values in the last column. Neither Instructional Salaries and Wages, Total Instruction costs nor Total Ordinary Expenditure showed a significant difference between French and English schools of bilingual boards.

TABLE III.14 (Page 1 of 3)

DISTRIBUTION OF MEAN COST PER PUPIL AT THE ELEMENTARY LEVEL BY EXPENDITURE ITEM, SCHOOL BOARD AND LANGUAGE OF INSTRUCTION (1975-76)

AREA		Northern 1		Northern 2	
BOARD		B[2]	D[1]	F[1]	G[2]
Expenditure Item	Language of Instruction	Mean	Mean	Mean	Mean
Business Administration	English	68.3	58.8	55.1	40.1
	French	68.3	-	-	40.1
	Total	68.3	58.8	55.1	40.1
Instructional	English	945.1	987.8	768.4	809.7
	French	835.2	-	-	904.2
	Total	857.1	987.8	768.4	870.7
Supplies	English	31.9	71.3	58.1	45.8
	French	34.0	-	-	55.2
	Total	33.6	71.3	58.1	51.8
Other	English	8.7	5.5	2.4	13.5
	French	1.9	-	-	14.1
	Total	3.2	5.5	2.4	13.9
Total Instruction	English	985.6	1,064.6	828.9	868.9
	French	871.0	-	-	973.5
	Total	893.9	1,064.6	828.9	936.4
Educational Services	English	33.4	14.6	36.4	9.8
	French	45.9	-	-	10.4
	Total	43.4	14.6	36.4	10.2
Plant and Maintenance	English	211.3	198.5	150.3	195.5
	French	199.8	-	-	212.9
	Total	198.5	198.5	150.3	206.8
Other Operating Costs	English	6.1	11.9	8.9	7.5
	French	5.7	-	-	7.5
	Other	5.8	11.9	8.9	7.5
Total Ordinary Expenditure	English	1,304.8	1,348.4	1,079.5	1,121.8
	French	1,190.7	-	-	1,244.4
	Total	1,213.5	1,348.4	1,079.5	1,200.9
Transportation	English	138.6	195.5	157.7	72.9
	French	138.0	-	-	108.5
	Total	138.1	195.5	157.7	95.9

[1] Boards operating only English schools

[2] Boards operating both English and French schools

TABLE III.14 (Page 2 of 3)

DISTRIBUTION OF MEAN COST PER PUPIL AT THE ELEMENTARY LEVEL BY EXPENDITURE ITEM, SCHOOL BOARD AND LANGUAGE OF INSTRUCTION (1975-76)

AREA		Southern 1		Southern 2
BOARD		A[2]	E[1]	C[2]
Expenditure Item	Language of Instruction	Mean	Mean	Mean
Business Administration	English	37.8	42.3	16.4
	French	37.8	-	20.4
	Total	37.8	42.3	17.4
Instructional	English	1,013.0	794.2	863.5
	French	952.3	-	866.7
	Total	973.4	794.2	864.3
Supplies	English	31.8	56.2	29.8
	French	37.8	-	29.3
	Total	35.7	56.2	29.7
Other	English	7.5	6.8	8.0
	French	6.5	-	8.0
	Total	6.8	6.8	8.0
Total Instruction	English	1,052.3	857.1	901.3
	French	996.5	-	904.0
	Total	1,016.0	857.1	902.1
Educational Services	English	17.0	23.3	16.3
	French	21.1	-	16.9
	Total	19.6	23.3	16.4
Plant and Maintenance	English	178.7	140.9	151.4
	French	183.7	-	136.5
	Total	181.9	140.9	147.7
Other Operating Costs	English	16.7	9.7	4.1
	French	11.1	-	4.1
	Total	13.1	9.7	4.1
Total Ordinary Expenditure	English	1,302.4	1,068.4	1,089.6
	French	1,250.2	-	1,081.9
	Total	1,268.4	1,068.4	1,087.7
Transportation	English	121.2	119.1	16.9
	French	87.5	-	24.3
	Total	99.3	119.1	18.8

[1] Boards operating only English Schools

[2] Boards operating both English and French schools

TABLE III.14 (Page 3 of 3)

DISTRIBUTION OF MEAN COST PER PUPIL AT THE ELEMENTARY LEVEL BY EXPENDITURE ITEM, SCHOOL BOARD AND LANGUAGE OF INSTRUCTION (1975-76)

Expenditure Item	Language of Instruction	Boards Operating Only English Schools Mean	Boards Operating English and French Schools Mean	t[1]
Business Administration	English	48.2	33.6	3.18***
	French	-	41.5	
	Total		38.3	
Instructional	English	807.5	908.8	.21
	French	-	914.9	
	Total		912.5	
Supplies	English	56.2	35.1	3.34***
	French	-	42.5	
	Total		39.5	
Other	English	5.24	9.7	1.07
	French	-	8.5	
	Other		8.8	
Total Instruction	English	871.2	953.2	.43
	French	-	965.9	
	Total		960.9	
Educational Services	English	26.5	15.6	2.09*
	French	-	20.5	
	Total		18.6	
Plant and Maintenance	English	140.9	176.8	2.34*
	French	-	192.4	
	Total			
Other Operating Costs	English	9.7	9.8	1.3
	French	-	8.7	
	Total		9.2	
Total Ordinary Expenditure	English	1,103.1	1,189.0	1.27
	French	-	1,229.1	
	Total		1,213.1	
Transportation	English	139.9	77.5	1.52
	French	-	97.0	
	Total		89.2	

[1] t values pertaining to the significance of the mean difference between groups determined by language of instruction

* significant at or beyond the .05 level

*** significant at or beyond the .001 level

In two of the three areas in which coterminous unilingual and bilingual boards were studied it is clear that it cost more to operate the bilingual than the unilingual system (even though the former's ability to pay is about one-third of the latter's). In Northern Area 2, average cost of operating the schools of the bilingual board was $1,201 or 11.2% more than the $1,079.50 it cost the unilingual board for its schools. In Southern Area 1, the average cost of operating the schools of the bilingual board was $1,268.40, or 18.7% more than the $1,068.40 per-pupil cost of the unilingual board. On the other hand, in Northern Area 1 the average cost of operating the schools of the bilingual board was $1,218.50 per pupil, or 10% less than the $1,348.40 spent by the unilingual board.

The overwhelming part played by Instructional Salaries and Wages in Total Ordinary Expenditure may be seen by comparing the two items in Table III.14. Table III.15 converts these figures into indexes. In only one case, that of Board C in Southern Area 2, is the pattern for Total Ordinary Expenditure different from that established for Instructional Salaries and Wages. The cause of the slight reversal in this instance is the atypical much higher expenditure for maintenance and operation of school plant for English than for French language schools. (It is to be noted that for all 172 schools the indexes on this item are as follows: unilingual boards' English schools, 100; bilingual boards' English schools, 125.5; and bilingual boards' French schools, 136.6.) It is to be noted also that this was one of only three items where a significant difference was found between groups of schools determined by language of instruction. The difference for Plant Operation and Maintenance was significant only at the 5% level of confidence.

TABLE III.15

INDEXES OF UNILINGUAL ENGLISH AND BILINGUAL ENGLISH AND FRENCH SCHOOLS' EXPENDITURES PER PUPIL ON INSTRUCTIONAL SALARIES AND WAGES AND ON TOTAL ORDINARY EXPENDITURE

Area	Board Type	Language of Instruction	Index of Instructional Salaries and Wages	Index of Total Ordinary Expenditures
Northern 1	Unilingual	English	100.0	100.0
	Bilingual	English	95.7	96.8
		French	84.6	88.3
Northern 2	Unilingual	English	100.0	100.0
	Bilingual	English	105.4	103.9
		French	117.7	115.3
Southern 1	Unilingual	English	100.0	100.0
	Bilingual	English	127.5	121.9
		French	119.9	117.0
Southern 2	Bilingual	English	100.0	100.0
		French	100.4	99.3

Our final task with respect to Table III.14, then, will be to look at the other items for which a significant difference between the two groups based on language was found, viz: Instructional Supplies, and Educational Services. For the former, the respective indexes were as follows: unilingual boards' English schools, 100; bilingual boards' English schools, 62.5; and bilingual boards' French schools, 75.6. The difference between the English and French schools of bilingual boards was found to be significant at the .001 level -- even though the expenditure in the French language schools was, on the average, only $7.50 per pupil higher than in the bilingual boards' English schools (i.e., the English language schools operated by boards which also operated French language schools). It may be seen by inspecting the table that this overall picture is reflected exactly in the three areas where unilingual and bilingual boards were examined. Only in the case of Board C was slightly more spent on supplies in English than in French schools.

For Educational Services the respective indexes were as follows: unilingual boards' English schools, 100; bilingual boards' English schools, 58.9; and bilingual boards' French schools, 77.4. The difference between the English and French schools of bilingual boards was found to be significant at the .05 level. The table shows that all four bilingual boards spent more per pupil on Educational Services in their French-speaking than in their English-speaking schools.

The F values calculated in Table III.14 relate only to the differences in cost per pupil between English and French language schools in bilingual boards. In addition, chi-squares were calculated for the relationship between cost per pupil in all of the subcategories and language of instruction for all schools in the sample. Table III.16 displays the items for which and the degree to which French or English schools were found to be more costly per pupil.

Table III.16 shows that, when all schools in the sample are compared, the French language schools cost more per pupil than the English language schools for Instructional Salaries and Wages (p = .0001), Total Instruction (p = .01), Maintenance and Operation (p = .0001), and Total Ordinary Expenditure (p = .0001). On the other hand, the English language schools spent more per pupil in the minor areas of Instructional Supplies (p = .05), Educational Services (p = .05) and Other Operating Costs (p = .01).

2.3 SCHOOL SIZE AND LANGUAGE

In order to determine whether the perceived differences in cost per pupil between schools operated by bilingual boards based on language were caused by differences in school size, Table III.17 was prepared. It is similar to Table III.14 except that, instead of the English/French dimension, size of school has been used as the vertical dimension. Table III.17 indicates the following significant differences caused by size of school:

a) For bilingual boards there was a significant difference at the 1% level, attributable to school size, in the per-pupil expenditure on Instructional Salaries and Wages, on Total Instructional Expenditure, on Plant Operation and Maintenance and on Total Ordinary Expenditure, with the smaller schools costing more.

b) For bilingual boards there was a significant difference at

TABLE III.16

RELATIONSHIP BETWEEN LANGUAGE OF INSTRUCTION AND COST PER PUPIL OF VARIOUS SCHOOL EXPENDITURES

Category of Cost Per Pupil	Average Cost Per Pupil[1] English	French	Result	Level of Significance
Instructional Salaries and Wages	$ 844	$ 915	F > E	.0001
Instructional Supplies	50	43	E > F	.05
Other Instruction	7	9	--	--
Total Instruction	901	966	F > E	.01
Educational Services	23	21	E > F	.05
Maintenance and Operation	160	192	F > E	.0001
Other Operating Costs	10	9	E > F	.01
Total Ordinary Expenditure	1,134	1,229	F > E	.0001
Transportation Expenditure	118	97	--	--

[1] Chi-squares, and hence levels of significance, are not based on the indicated average cost per pupil but on the actual distribution of the 169 schools in the sample.

TABLE III .17 (Page 1 of 3)

DISTRIBUTION OF MEAN COST PER PUPIL AND F RATIOS ON VARIOUS EXPENDITURE ITEMS BY SCHOOL BOARD AND SCHOOL SIZE IN TERMS OF ENROLMENT (1975-76)

AREA		Northern 1		Northern 2	
BOARD		B[2]	D[1]	F[1]	G[2]
Expenditure Item	Size Category	Mean	Mean	Mean	Mean
Instructional Salaries and Wages	7-109	837.6	1,082.2	832.6	960.1
	110-219	916.7	904.0	703.6	933.8
	220-319	632.6	1,088.4	764.3	833.8
	≥ 320	840.1	887.8	783.4	810.4
Supplies	7-109	33.2	69.6	76.4	49.6
	110-219	32.9	74.5	50.3	56.1
	220-319	30.0	67.3	53.2	47.1
	≥ 320	37.5	73.2	60.9	55.9
Other	7-109	.8	2.6	.3	14.1
	110-219	4.6	10.7	1.6	14.0
	220-319	1.4	9.6	3.0	13.8
	≥ 320	3.2	5.4	2.9	13.8
Total Instruction	7-109	871.6	1,154.5	909.3	1,023.8
	110-219	954.2	989.2	755.5	1,003.9
	220-319	663.9	1,165.2	820.5	894.6
	≥ 320	880.7	966.4	847.1	880.0
Educational Services	7-109	16.8	13.8	36.0	9.4
	110-219	47.4	13.8	37.5	9.9
	220-319	62.0	9.7	35.6	10.9
	≥ 320	50.9	16.3	36.9	9.8
Plant and Maintenance	7-109	222.7	199.0	178.1	249.8
	110-219	218.1	188.4	158.0	213.4
	220-319	124.0	175.0	145.8	196.4
	≥ 320	180.6	209.2	139.7	188.3
Other Operating Costs	7-109	4.6	13.1	7.9	7.5
	110-219	6.0	10.4	8.2	7.5
	220-319	5.6	12.5	8.9	7.5
	≥ 320	6.5	10.9	9.7	7.5
Total Ordinary Expenditure	7-109	1,183.8	1,439.2	1,186.4	1,330.6
	110-219	1,294.0	1,263.5	1,014.2	1,274.9
	220-319	923.8	1,421.2	1,065.9	1,149.5
	≥ 320	1,187.0	1,261.6	1,088.5	1,125.8
Transportation	7-109	174.1	241.7	146.1	100.9
	110-219	150.0	134.8	163.9	118.2
	220-319	51.3	131.9	135.8	90.7
	≥ 320	115.8	190.6	187.3	80.3

[1] Boards operating only English schools

[2] Boards operating both English and French schools

TABLE III - 17 (Page 2 of 3)

DISTRIBUTION OF MEAN COST PER PUPIL AND F RATIOS ON VARIOUS EXPENDITURE ITEMS BY SCHOOL BOARD AND SCHOOL SIZE IN TERMS OF ENROLMENT (1975-76)

AREA		Southern 1		Southern 2
BOARD		A[2]	E[1]	C[2]
Expenditure Item	Size Category	Mean	Mean	Mean
Instructional Salaries and Wages	7-109	1,081.9	787.7	-
	110-219	965.1	793.0	821.7
	220-319	908.4	794.6	933.3
	≥ 320	930.1	821.2	824.1
Supplies	7-109	36.1	57.5	-
	110-219	35.5	54.9	26.6
	220-319	33.9	55.5	33.7
	≥ 320	38.6	61.9	27.8
Other	7-109	6.7	6.3	-
	110-219	6.7	7.0	8.0
	220-319	7.4	7.1	8.0
	≥ 320	6.1	5.8	8.0
Total Instruction	7-109	1,124.7	851.5	-
	110-219	1,007.3	854.9	856.3
	220-319	949.7	857.3	975.1
	≥ 320	974.8	888.9	860.0
Educational Services	7-109	20.0	20.9	-
	110-219	20.4	23.8	15.0
	220-319	18.1	24.1	16.6
	≥ 320	20.4	25.3	17.6
Plant and Maintenance	7-109	186.6	140.9	-
	110-219	185.9	140.9	159.7
	220-319	176.2	140.9	149.9
	≥ 320	176.9	140.9	133.0
Other Operating Costs	7-109	14.8	11.0	-
	110-219	11.4	9.4	4.1
	220-319	13.9	9.2	4.1
	≥ 320	12.0	8.5	4.1
Total Ordinary Expenditure	7-109	1,384.0	1,066.6	-
	110-219	1,262.8	1,060.2	1,052.7
	220-319	1,195.8	1,073.8	1,163.4
	≥ 320	1,221.9	1,105.8	1,031.8
Transportation	7-109	130.2	147.3	-
	110-219	116.5	130.9	10.1
	220-319	65.2	71.3	18.9
	≥ 320	77.1	113.6	27.3

[1] Boards operating only English schools

[2] Boards operating both English and French schools

TABLE III . 17 (Page 3 of 3)

DISTRIBUTION OF MEAN COST PER PUPIL AND F RATIOS ON VARIOUS EXPENDITURE ITEMS BY SCHOOL BOARD AND SCHOOL SIZE IN TERMS OF ENROLMENT (1975-76)

		School Boards Operating only English schools		School Bds. Operating English and French schools	
Expenditure Item	Size Category	(N=3) Mean	F^1 (Eta^2)	(N=4) Mean	F^1 (Eta^2)
Instructional Salaries and Wages	7-109	851.3	.71	1,020.9	6.35**
	110-219	782.3	(.03)	925.8	(.17)
	220-319	795.7		876.8	
	≥ 320	816.2		854.3	
Supplies	7-109	63.3	3.84*	39.5	.59
	110-219	54.9	(.14)	38.4	(.02)
	220-319	55.1		38.6	
	≥ 320	64.0		42.3	
Other	7-109	72.2	1.99	8.1	.85
	110-219	143.5	(.08)	8.3	(.03)
	220-319	107.8		9.7	
	≥ 320	53.8		9.1	
Total Instruction	7-109	919.1	.83	1,068.6	6.05**
	110-219	843.5	(.04)	972.5	(.16)
	220-319	856.1		925.1	
	≥ 320	884.3		905.7	
Educational Services	7-109	22.4	2.56	16.7	1.07
	110-219	25.9	(.10)	21.5	(.03)
	220-319	28.6		16.6	
	≥ 320	29.5		18.7	
Plant and Maintenance	7-109	158.8	1.10	208.2	6.10**
	110-219	146.0	(.05)	193.3	(.16)
	220-319	144.8		176.6	
	≥ 320	156.0		171.4	
Other Operating Costs	7-109	10.8	2.25	11.7	3.24*
	110-219	9.2	(.09)	8.3	(.09)
	220-319	9.3		9.3	
	≥ 320	9.7		8.0	
Total Ordinary Expenditure	7-109	1,158.9	1.23	1,346.9	9.04**
	110-219	1,061.1	(.05)	1,235.8	(.22)
	220-319	1,087.6		1,163.3	
	≥ 320	1,132.5		1,140.6	
Transportation	7-109	164.8	1.02	126.9	5.50**
	110-219	136.8	(.04)	104.7	(.15)
	220-319	103.3		64.8	
	≥ 320	171.0		70.5	

[1] F values pertaining to the significance of the mean differences among school size categories.

* significant at or beyond the .05 level

** significant at or beyond the .01 level the 5% level, attributable to school size, in the per-pupil expenditure on Other Operating Costs.

c) For unilingual boards there was a significant difference at the 5% level, attributable to school size, in per-pupil expenditure on Instructional Supplies. (Incidentally, this was caused by higher expenditures for small schools -- less than 110 pupils, and for large schools -- over 319 pupils, than for schools in the range: 110-310 pupils.)

In order to assess whether or not these school size differences account for the perceived differences in per-pupil costs between English and French language schools, two additional chi-square tables were prepared. Table III.18 shows the chi-square calculation of the relationship between size of school and language of instruction for the English and French language schools operated by the four bilingual boards in the study.

This calculation shows that there is no relationship between language of instruction and school size among the schools operated by the bilingual boards in the sample. The chi-square is one that could have occurred by chance in almost one out of four situations.

Table III.19 shows the chi-square for the relationship between language of instruction and school size for all schools in the sample. Here the chi-square is even less than in the case of Table III.18.

On the basis of the schools we have examined, therefore, we must conclude that the observed differences in the cost per pupil of English language and French language schools are real differences not attributable

TABLE III.18

RELATIONSHIP BETWEEN SIZE OF SCHOOL AND LANGUAGE OF INSTRUCTION FOR THE SCHOOLS OPERATED BY THE FOUR BILINGUAL BOARDS IN THE STUDY

Enrolment Size		Language of Instruction		Total
		English	French	
0 - 109	o	6	10	16
	e	6.43	9.57	
110 - 219	o	8	22	30
	e	12.06	17.94	
220 - 319	o	15	13	28
	e	11.26	16.74	
320+	o	10	13	23
	e	9.25	13.75	
TOTAL		39	58	97

χ^2 = 4.514 with 3 d.f.   not significant at 5% level

TABLE III.19

RELATIONSHIP BETWEEN SIZE OF SCHOOL AND LANGUAGE OF INSTRUCTION OF ALL SCHOOLS IN THE SAMPLE

Enrolment size		Language of Instruction		Total
		English	French	
0 - 109	o	22	10	32
	e	21.02	10.98	
110 - 219	o	31	22	53
	e	34.81	18.19	
220 - 319	o	35	13	48
	e	31.53	16.47	
320+	o	23	13	36
	e	23.64	12.36	
TOTAL		111	58	169

χ^2 = 3.540 with 3 d.f.   not significant at 25% level to differences in school size.

2.4 LOCATION, SIZE, BOARD TYPE

What factors other than language of instruction may affect cost per pupil? It was decided to look at the differences between boards along three dimensions: (1) northern versus southern boards; (2) public-school versus separate-school boards; and (3) unilingual versus bilingual boards. Table III.20 shows the results of these comparisons as well as those already reported.

From Table III.20 it is abundantly clear that, for the schools studied, French language schools are significantly more costly per pupil than English language schools, separate schools are more costly than public schools, and schools operated by bilingual boards are more costly than those operated by unilingual boards. It is also clear that there is no relationship between cost per pupil and either school size or location in northern or southern Ontario. From Table III.20 it is not possible to determine whether French language schools are more costly than English language schools because they are usually separate schools, or whether the separate schools in the sample were more costly than the public schools because the former included a larger number of French language schools than did the latter.

The next step was to relate language of instruction to size and the three kinds of boards. The results are shown in Table III.21. Language of instruction is unrelated to size of school and to location in northern or southern Ontario (for the schools in our sample). On the other hand, French language schools are most apt to be in separate-school and bilingual boards.

TABLE III.20

RELATIONSHIP OF COST PER PUPIL (TOTAL ORDINARY EXPENDITURE) OF ALL ELEMENTARY SCHOOLS IN THE STUDY AND FIVE FACTORS THAT MIGHT BE PERCEIVED TO AFFECT THAT COST

Factors Compared	Result	χ^2	d.f.	Level of Significance
Cost Per Pupil vs. Language	F > E	20.033	3	$\geq .0001$
Cost Per Pupil vs Size	n.s.	3.540	3	$< .25$
Cost Per Pupil vs. Northern and Southern Boards	n.s.	3.423	3	$< .25$
Cost Per Pupil vs. Public and Separate Boards	Sep > Pub	38.373	3	$\geq .0001$
Cost Per Pupil vs. Unilingual and Bilingual Boards	Bi > Uni	28.385	3	$\geq .0001$

TABLE III.21

RELATIONSHIP OF LANGUAGE OF INSTRUCTION OF ALL ELEMENTARY SCHOOLS IN THE STUDY TO SCHOOL SIZE AND THREE TYPES OF BOARD DICHOTOMIES

Factors Compared	Result	χ^2	d.f.	Level of Significance
Language of Instruction vs. size	n.s.	3.041	3	$< .25$
Language of Instruction vs. Northern and Southern Boards	n.s.	0.872	1	$< .25$
Language of Instruction vs. Public and Separate Boards	more Fr. in Sep.	73.026	1	$\geq .0001$
Language of Instruction vs. Unilingual and Bilingual Boards	more Fr. in Bi.	66.361	1	$\geq .0001$

Table III.22, which gives the results of the remaining possible comparisons, indicates that the schools in our sample show no relationship between size and any of the three dichotomies of boards. There was no relationship between the number of sample schools in northern or southern Ontario and the number operated either by public or separate boards or by unilingual or bilingual boards. As might be expected, there was great differentiation in the public/separate versus unilingual/ bilingual board relationship. Schools in bilingual boards are overwhelmingly (though not exclusively) found in separate-school boards.

In order to carry out tests to assess whether separate schools cost more per pupil because they are in bilingual boards and thus have a higher proportion of French language schools, or whether French language schools cost more because they are predominantly under separate-school jurisdiction, one would have had to include unilingual separate-school boards in the study. Our analysis brought to light no readily apparent reason why the separate schools in the study were more costly per pupil than the public schools, other than because they were operating schools in two languages. (Schools for Grades 9 and 10 pupils were excluded for purposes of the comparisons.) The extra provincial grant money, both for Francophone students and for Anglophone students studying French, weights the expenditure level in that direction (but only if a higher proportion of the separate-school than the public-school pupils is receiving the French grant).

2.5 STAFFING FACTORS

Since it appears that French language schools do cost more than English language schools, we must attempt to understand why. From Table III.14, and the discussion concerning it, we note that it is

TABLE III.22
INTERRELATIONSHIPS BETWEEN SCHOOL SIZE AND NORTH/SOUTH, PUBLIC/SEPARATE, AND UNILINGUAL/BILINGUAL BOARDS

Factors Compared	Result	χ^2	d.f.	Level of Significance
School Size vs. Northern and Southern Boards	n.s.	6.274	3	$<.05$
School Size vs. Public and Separate Boards	n.s.	0.067	3	$<.25$
School Size vs. Unilingual and Bilingual Boards	n.s.	1.307	3	$<.25$
Northern and Southern Boards vs. Public and Separate Boards	n.s.	3.261	1	$<.05$
Northern and Southern Boards vs. Unilingual and Bilingual Boards	n.s.	0.074	1	$<.25$
Public and Separate Boards vs. Unilingual and Bilingual Boards	a	118.193	1	$\leq.0001$

[a] Bilingual overwhelmingly separate.

chiefly in the area of Instructional Salaries and Wages that the higher cost per pupil in French language schools is evident. Higher per-pupil costs for instructional salaries may be caused by one or more of the following factors:

a) higher professional staffing ratios - i.e., more full-time-equivalent (FTE) professional staff members per 1,000 pupils;
b) higher average years of teaching experience;
c) higher average salary-related qualifications, and
d) a higher salary scale.

For bilingual boards, only the first three factors could be relevant since a board would have the same salary scale for both its Francophone and Anglophone teachers.

Table III.23 shows for each of the boards, separately for English and French schools, the average professional staffing ratio (FTE professionals per 1,000 pupils) reduced to an index number based on 100 for the English schools of the combined boards.

The remaining columns of Table III.23 show the average years of teaching experience and the average cost per pupil for Instructional Salaries and Wages, together with the index numbers calculated as for the professional staffing ratios. An examination of the figures for the combined boards will show that the French schools, which had a higher cost per pupil for Instructional Salaries and Wages (8% higher), also had more professionals per 1,000 pupils (6% more) and more average years of teaching experience (4% more). What are not shown are the average academic qualifications of teachers and differences (if any) in salary scales. When we look at the paired boards we do not always find this logical relationship. For Board B, salary per pupil and staffing ratio are higher for English than for

TABLE III.23

AVERAGE PROFESSIONAL STAFFING RATIOS AND YEARS OF TEACHING EXPERIENCE FOR FRENCH-LANGUAGE AND ENGLISH-LANGUAGE SCHOOLS COMPARED WITH AVERAGE INSTRUCTIONAL SALARIES AND WAGES PER PUPIL, BY BOARD

Area	Board	Language of Instruction	FTE Teachers Per 1,000 Pupils	Average Years of Teaching Experience		Average Salaries and Wages Cost Per Pupil	
			Index		Index		Index
Northern 1	B	English	121	8.18	80	945.10	112
		French	107	9.60	94	835.20	99
	D	English	101	8.60	84	987.80	117
Northern 2	F	English	96	10.43	102	768.40	91
	G	English	91	10.61	104	809.70	96
		French	97	10.63	104	904.20	107
Southern 1	A	English	114	9.42	92	1013.00	120
		French	116	10.54	103	952.30	113
	E	English	104	10.23	100	794.20	94
Southern 2	C	English	90	11.08	108	863.50	102
		French	93	13.42	131	866.70	103
Combined Boards		English	100	10.20	100	843.70	100
		French	106	10.67	104	914.90	108

French language schools, while French language schools had greater average teaching experience. The salaries-per-pupil figure is over $100 higher for the English than for the French schools; but there are almost seven more teachers per 1,000 pupils. It is possible that the average academic qualifications of the Anglophone teachers are higher than those of the Francophone teachers.

For Boards C and G, all factors operate in the same direction. However, a problem arose with Board A, where the French schools, despite a higher staffing ratio (+2%) and higher average teaching experience (+12%), have a lower salary cost per pupil (-6%). In this case an attempt was made to obtain data concerning the average academic qualifications of the two groups of teachers.

The salary grid for all teachers, librarians, principals and vice-principals and consultants was obtained, broken down as to language. The nine categories of academic and professional qualifications were assigned numbers from one to nine from the lowest to the highest and the average category calculated. The result was an average category of 5.23 for the English teachers and one of 4.88 for the French teachers. It must be remembered that part of a staff with an average qualification level higher than the other part incurs increased costs in two ways: (1) the base salary of the higher category is higher than the base salary of the lower category (in this case, there is a difference of $1,700 between the base salaries of categories 4 and 6), and (2) the increments for experience are greater for the higher than for the lower academic categories.

These higher costs of academic qualifications for the English as opposed to the French teachers in Board A could well account for the fact that the salary bill per pupil for the English schools is higher than that for the French schools, even though the Francophone teachers have more teaching experience and there are more of them per 1,000 pupils.

Another anomaly in Table III.23 concerns Board D in Northern Area 1 as compared with Board E in Southern Area 1. While the former board has a per-pupil salary bill $194 higher (+24%) than the latter, its staffing ratio is lower (-3%) and its average teaching experience is also lower (-16%). An examination of this situation showed the major cause of the apparent anomaly to be a large difference in salary scales. Board E was still operating with a salary scale from a previous year, pending settlement of negotiations. This made a difference of from $1,100 to $2,000 in the salaries of persons at the same grid point in terms of experience and qualifications. This would be sufficient to counterbalance the slightly lower staffing ratio and average teaching experience.

2.6 SUMMARY

Our statistical data for the seven elementary boards (four public, three separate; three unilingual, four bilingual; four northern, three southern) lead us to the following conclusions:

a) Cost per pupil for Total Ordinary Expenditure is dependent mainly on that for Instructional Salaries and Wages.

b) Cost per pupil for Total Ordinary Expenditure is significantly higher for bilingual than for unilingual boards.

c) Since three of the four bilingual boards studied were separate school boards, separate school boards in the sample spend significantly more per pupil on Total Ordinary Expenditure than do public school boards in the sample.

d) Within bilingual boards, cost per pupil in French language schools is higher than in English-speaking schools for Instructional Salaries and Wages, Total Instruction, Maintenance and Operation, and Total Ordinary Expenditure, but is lower for Instructional Supplies, Educational Services, and Other Operating Costs (see Table III.16).

e) The chief contributors to the higher cost per pupil of French language schools are (i) a higher staffing ratio (or lower pupil:teacher ratio) and (ii) a higher average number of years of teaching experience.

f) The cost per pupil of French language schools would be even higher in relation to English language schools for several boards were it not that the average academic and professional qualifications of French language teachers in those boards are lower than those for English language teachers.

g) Since it might have been argued that separate school boards are more costly to operate per pupil than public school boards because of the higher per-pupil costs of educating Grades 9 and 10 (which public school boards do not have), schools enrolling only Grades 9 and 10 pupils were excluded from the statistical comparisons. As a result, it is concluded that separate schools in the sample cost more per pupil to operate than public schools because they are all in bilingual boards, whereas less than 20 out of some 90 public schools are in bilingual boards.

h) Our data provide no firm conclusions as to the extra dollars per pupil that need to be spent by bilingual boards to cover the extra costs incurred by such boards. Such conclusions must be based on the service levels rather than simply on existing patterns of expenditure.

3. SECONDARY SCHOOL COSTS

3.1 DATA ANALYSED

Cost data were obtained for all secondary schools operated by four boards of education. Two of these boards were in northern Ontario and two were in southern Ontario; all four operated French language instructional units, sometimes in self-contained schools and sometimes in so-called bilingual or English-French schools. In all, more than 20 schools operated by these four boards were studied, of which 13 provided French-language instruction: 9 mixed and 4 French secondary schools. Such a small group of schools is too small to be considered a satisfactory statistical sample of the English, French and mixed secondary schools of the province. The numbers were too few, for instance, to make contingency tables and calculate chi-squares as was done in the previous section for elementary schools. This section will nevertheless report on the statistical relationships that were found, chiefly by the Spearman rank-difference correlation method. Table III.24 displays the means and standard deviations of the various expenditure items for the three types of secondary school and for the total group of schools.

It will be seen that for Total Ordinary Expenditure the dollar variations are not great. Using the figure for the total as 100, the index numbers for the three types of boards are as follows: English, 98; French, 101; and mixed, 101. Table III.25 shows the index numbers for all of the items in Table III.24. The major components -- Instructional Salaries and Wages, and Total Instruction -- show very minor variations among the three types of boards. There seem to be marked differences in the areas of Business Administration (mixed schools 18% above and English schools 16% below the average), Other Instructional Costs (French schools

TABLE III. 24

MEANS AND STANDARD DEVIATIONS OF COST PER PUPIL AT THE SECONDARY LEVEL BY EXPENDITURE ITEM AND TYPE OF SCHOOL (1975-76)

Expenditure Items	Statistic	Type of School			Total
		English	French (N=4)	Mixed (N=9)	
Business Administration	Mean	45.02	51.21	62.82	53.43
	SD	10.03	10.21	8.84	12.33
Instructional Salaries and Wages	Mean	1,319.17	1,314.22	1,339.04	1,326.40
	SD	107.00	41.71	92.81	89.51
Supplies	Mean	87.88	89.82	85.10	87.10
	SD	26.40	8.76	12.72	18.48
Other	Mean	24.07	25.39	19.02	22.25
	SD	4.80	10.59	9.71	8.27
Total Instruction	Mean	1,431.12	1,429.42	1,443.17	1,435.74
	SD	100.84	33.22	85.79	82.92
Educational Services	Mean	44.74	52.23	47.39	47.19
	SD	12.39	4.70	12.42	11.31
Maintenance and Operation	Mean	201.80	245.70	233.83	222.88
	SD	16.84	55.00	62.30	48.58
Other Operating Costs	Mean	17.27	17.60	16.82	17.14
	SD	6.89	6.51	8.56	7.21
Total Ordinary Expenditure	Mean	1,739.95	1,796.16	1,795.03	1,772.70
	SD	108.93	75.62	132.69	113.24
Transportation	Mean	96.81	61.73	146.87	110.91
	SD	79.27	45.31	60.90	72.11

TABLE III. 25

INDEX NUMBERS FOR COST PER PUPIL AT THE SECONDARY LEVEL BY EXPENDITURE ITEM AND TYPE OF SCHOOL (1975-76)

Expenditure Items	Type of School			Total
	English	French (N=4)	Mixed (N=9)	
Business Administration	84	96	118	100
Instructional Salaries and Wages	99	99	101	100
Supplies	101	103	98	100
Other	108	114	85	100
Total Instruction	99.7	99.6	100.5	100
Educational Services	95	111	100	100
Maintenance and Operation	91	110	105	100
Other Operating Costs	101	103	98	100
Total Ordinary Expenditure	98	101	101	110
Transportation	87	56	132	100

199 200

14% above and mixed schools 15% below the average), Educational Services (French schools 11% above and English schools 5% below the average) and Maintenance and Operation (French schools 10% above and English schools 9% below the average). The greatest variation, however, lies outside Ordinary Expenditure: Transportation expenditure was 32% above average for the mixed schools, and 44% below average for the French schools. There is some doubt as to the meaningfulness of the cost data respecting transportation since boards do not keep records concerning the language of instruction of transported pupils, nor do they cost out the transportation expenditure by school. The school figures that were available, then, were usually the average board-wide cost per transported pupil multiplied by the number of pupils transported to a particular school. This is borne out by the almost perfect positive correlation between cost per pupil of transportation and percentage of pupils transported. What the figures in the bottom line of Table III.25 indicate, then, is that for the sample schools, the French schools had the smallest percentage of their enrolment transported, the English schools a considerably higher proportion, and the mixed schools by far the highest proportion of all.

Some of the per-pupil average costs are more reliable than others because of the difference in the variability of costs among the three types of schools. Table III.26 shows the coefficients of variability for Total Ordinary Expenditure and its components for the three types of schools and for all schools together.

The items with low coefficients of variability (CV's) are Instructional Salaries and Wages, Total Instruction, and Total Ordinary Expenditure. For other items variability ranges from 21.2 (standard deviation is 21.2% of the mean) for Instructional Supplies to 42.1 for other operating costs. French schools have the lowest CV's for Instructional

TABLE III.26

COEFFICIENTS OF VARIABILITY OF COST PER PUPIL OF THE COMPONENTS OF TOTAL ORDINARY EXPENDITURE FOR ENGLISH, FRENCH AND MIXED SECONDARY SCHOOLS

Expenditure Item	Type of School			Total
	English	French (N = 4)	Mixed (N = 9)	
Business Administration	22.3	19.9	14.1	23.1
Instructional Salaries and Wages	8.1	3.2	6.9	6.7
Instructional Supplies	30.0	9.8	14.9	21.2
Other Instruction	19.9	41.7	51.1	37.2
Total Instruction	7.0	2.3	5.9	5.8
Educational Services	27.7	9.0	26.2	24.0
Maintenance and Operation	8.3	22.4	26.6	21.8
Other Operating Costs	39.9	37.0	50.9	42.1
Total Ordinary Expenditure	6.3	4.2	7.4	6.4

Salaries and Wages, Instructional Supplies, Total Instruction, Educational Services, Other Operating Costs, and Total Ordinary Expenditure, and the other items have the middle CV's. Mixed schools' CV's are lowest of the three types for Business Administration but are highest for Other Instruction, Maintenance and Operation, Other Operating Costs, and Total Ordinary Expenditure.

What this table tells us is that most reliance can be placed on the average per-pupil cost figures for the Instructional Salaries and Wages component of Total Instruction and upon the Total Instruction and Total Ordinary Expenditure figures themselves. It is for this reason that in the further analysis of the total group of schools and of schools within boards, cost per pupil of Total Ordinary Expenditure will be the only figure used.

3.2 COST DIFFERENTIALS WITHIN MIXED SCHOOLS

An attempt was made to apportion costs within mixed schools to French language and English language students. This was done after consultation with board officials, the principals and other staff members of the schools concerned. There were some problems with this procedure, however. Clearly it is not sufficient to apportion to the French-speaking students only the cost of those subjects taught in French, or even to apportion to them the costs of all the courses taught in French, since, in the first case, even in unilingual French language schools all courses (e.g. anglais) are not taught in French and, in the second case, some French language instruction (e.g. French) is provided for anglophones. The method of apportioning costs within mixed schools is explained elsewhere and should be borne in mind when studying the following analysis. Our preliminary look at the per-pupil costs allocated to the French and English sections of mixed schools showed that the only two categories where successful attempts were made to allocate the costs differentially were Business Administration and Instructional Salaries and Wages. For the remaining unique categories (Instructional Supplies, Other Instruction, Educational Services, and Maintenance and Operation) at least two of the three boards concerned had prorated the costs according to enrolment.

Table III.27 shows, by board and school, the per-pupil expenditure for Business Administration, Salaries and Wages, and Total Ordinary Expenditure as split between the English-speaking and French-speaking sections of the school and showing the index number for the French cost per pupil based on 100 for the English.

It will be seen that for all nine schools Business Administration was more costly per pupil for the French than the English pupils (+4% to +14%). On the other hand, in only five of the schools were Instructional Salaries and Wages and Total Ordinary Expenditures per pupil higher for the French pupils. In four schools they were higher by from 3% to 5% and in the fifth by 21%. In the other four schools, cost per pupil was higher for the English pupils by from 1% to 7%.

These data give no clear-cut indication of meaningful differences in cost per pupil of English- and French-speaking pupils in mixed secondary schools.

3.3 ANALYSIS OF SECONDARY COSTS PER PUPIL

The next attempt was to find out if there were significant relationships among cost per pupil, language, size of school, and board for the schools as a group. Since there were only four French language

TABLE III. 27

BREAKDOWN OF ORDINARY OPERATING EXPENDITURE AND TWO OF ITS COMPONENTS BETWEEN ENGLISH AND FRENCH SECTIONS OF MIXED SECONDARY SCHOOLS, WITH INDEXES

Board Code	School Code	Language of Instruction	Ordinary Operating Expenditure Per Pupil					
			Business Administration		Salaries and Wages		Total	
			Amount	Index	Amount	Index	Amount	Index
W	AM	English	63.90	100	1,224.62	100	1,690.68	100
		French	72.55	114	1,289.88	105	1,755.85	104
	BM	English	63.90	100	1,363.68	100	1,849.28	100
		French	72.55	114	1,229.65	90	1,716.27	93
Y	CM	English	55.09	100	1,435.15	100	1,939.84	100
		French	57.81	104	1,418.77	99	1,926.19	99
	DM	English	55.10	100	1,436.96	100	2,011.53	100
		French	57.80	104	1,490.92	104	2,068.11	103
Z	EM	English	45.53	100	1,276.35	100	1,715.49	100
		French	50.72	111	1,136.96	89	1,621.36	95
	FM	English	46.27	100	1,279.78	100	1,673.65	100
		French	51.41	111	1,344.95	105	1,760.16	105
	GM	English	45.05	100	1,528.13	100	1,956.44	100
		French	50.18	111	1,380.96	90	1,825.81	93
	HM	English	43.61	100	1,275.19	100	1,663.64	100
		French	48.75	112	1,305.56	102	1,726.13	104
	IM	English	47.82	100	1,218.07	100	1,599.92	100
		French	52.43	111	1,531.53	126	1,936.30	121

schools in the sample, and since chi-square tests require expected frequencies of at least five in no more than 20% of the cells, the Spearman rank-difference correlation coefficients were calculated. Since Spearman's rho is based on comparing rank orders it was necessary to devise rank orders for (a) French, English, and mixed schools, and (b) board type.

Since there is no clear indication in Table III.27 as to the definitive ranking (from highest to lowest per-pupil cost) of French, English, and mixed schools, correlations were done with cost per pupil for the three possible discrete rank orders, i.e.,

(a) 1. French
    2. Mixed
    3. English
(b) 1. French
    2. English
    3. Mixed
(c) 1. Mixed
    2. French
    3. English

(The other three possible rank orders are merely reversals of the foregoing three.) Normal procedure was used for tied rankings but since there were more than 20 schools and only three discrete rankings, all rankings on language were tied rankings. With such a large number of ties the alternate formula with a correction for ties was used. Otherwise rho's would have been severely overstated. The formula for Spearman's rho (r_s) is as follows:

$$r_s = \frac{\Sigma x^2 + \Sigma y^2 - \Sigma d^2}{2\sqrt{\Sigma x^2 \Sigma y^2}}$$

where

$$\Sigma x^2 = \frac{N^3 - N}{12} - \Sigma T_x$$

$$\Sigma y^2 = \frac{N^3 - N}{12} - \Sigma T_y$$

and where ΣT_x and ΣT_y are respectively the tie-correction factors for the x and y rankings. The formula for calculating T_y is:

$$T_y = \frac{t_y{}^3 - t}{12}$$

where t = the number of observations tied at a given rank.

The resulting Spearman rho's and the percentage of variance in cost per pupil explained by them are shown in Table III.28, from which it may be seen that the strongest relationship exists between cost per pupil and language of instruction when French is ranked first (highest presumed cost per pupil), mixed is ranked second, and English third. But even here the rho is so low that only about 4% of the variance in cost per pupil can be explained by language of instruction. It is to be noted also that the second highest rho was achieved when it was assumed that the rankings were: Mixed, French, English. This indicates that there was a very slight tendency for English language schools to cost less than the French language and mixed schools, but this tendency was not statistically significant.

Spearman rho's were also calculated for the three discrete rankings of French, English, and mixed schools in terms of size of school to see if there was any relationship between school size and language of instruction (Table III.29).

TABLE III. 28

SPEARMAN RANK CORRELATION COEFFICIENTS BETWEEN COST PER PUPIL OF ORDINARY EXPENDITURE AND LANGUAGE OF INSTRUCTION

		Percentage of Variance Explained
Cost per Pupil vs. F M E =	+.211	4
Cost per Pupil vs. F E M =	+.019	0
Cost per Pupil vs. M F E =	+.166	3

Key: F M E = French ranked 1st;
Mixed ranked 2nd;
English ranked 3rd, etc.

TABLE III. 29

SPEARMAN RANK CORRELATION COEFFICIENTS BETWEEN SIZE OF SCHOOL AND LANGUAGE OF INSTRUCTION

		Percentage of Variance Explained
Size of School vs. F E M =	+.161	3
Size of School vs. E F M =	+.174	3
Size of School vs. E M F =	+.080	1

Key: F M E = French ranked 1st;
English ranked 2nd;
Mixed ranked 3rd, etc.

It may be seen from Table III.29 that all rho's are too small to be meaningful. However it is obvious that what relationship there is supports the assumption that mixed schools in the sample tend to be smaller than either English or French schools: the two highest rho's occur when the mixed schools are ranked third, but again none of the these relationships is statistically significant.

Rank-difference correlations (Spearman rho's) were next calculated between cost per pupil and school size as determined by enrolment. The rho obtained was .069 which means that less than one percent of the variance in cost per pupil can be explained by differences in school size. We may conclude, then, that school size is even less important than language of instruction in determining cost per pupil (for the schools in our sample). These correlations are displayed in Table III.30.

To devise rank orders for the four school boards, inspection was first used. It was obvious by inspection that cost per pupil in the two northern boards was greater than that in the two southern boards. Only four possible rankings needed to be examined, therefore, those with the two northern boards in first or second positions, and the two southern boards in third or fourth positions. The ranking yielding the highest positive correlation coefficient with cost per pupil was then selected. The rho obtained for the relationship between cost per pupil and board was .671 significant at the .001 level. This means that differences in spending levels between boards accounted for 45% of the variance in cost per pupil among the secondary schools studied.

A similar procedure was used to rank the boards for purposes of comparing school size with board. Here the rho (corrected for ties) was only .292 which is not significant at the .05 level. School size explains only nine percent of the variance in cost per pupil among the

TABLE III. 30

MATRIX OF SPEARMAN RANK-DIFFERENCE CORRELATION COEFFICIENTS AMONG FOUR VARIABLES PERTAINING TO SAMPLED SECONDARY SCHOOLS IN FOUR ONTARIO BOARDS OF EDUCATION

Variable	Cost per Pupil	Board	School Size	Language of Instruction
Cost per Pupil	1.000	.671†	.069	.211
Board	.671†	1.000	.292	.142
School Size	.069	.292	1.000	.174
Language of Instruction	.211	.142	.174	1.000

† Significant at the .001 level of confidence.

schools. Next, the rank correlation coefficient between language of instruction and board was calculated and, at .142, was not significant at the .05 level.

Table III.30 shows all of the intercorrelations of the four variables: cost per pupil, school size, language of instruction, and board. It will be seen from Table III.30 that only one relationship is significantly different from chance at the .05 or higher level of confidence: that between cost per pupil and board. In an attempt to find some reason for the differences in board costs, chi-square was calculated by the use of a 2 x 2 contingency table of which the horizontal variables were locations of the board in northern or southern Ontario and the vertical variables upper-level and lower-level cost per pupil. The contingency table and the resulting chi-square are presented in Table III.31.

The χ^2 calculated in Table III.31, at 9.214, is significant at the .005 level. It becomes probable, therefore, that the high relationship between cost per pupil and board in the cases studied is attributable to the higher cost per pupil of secondary schools in northern than in southern Ontario. It will be recalled that there was no significant difference found for the similar relationship in elementary schools.

3.4 WITHIN-BOARD ANALYSIS

To this point we have been looking at the schools as a group. It is possible that there are relationships within boards that are watered down and obscured when the schools of the four boards are taken together. Two of the boards, W and X, had too few schools in the sample to make possible the calculation of correlation coefficients. Table III.32 displays the relationships found by the Spearman rank-difference method among cost per pupil, school size, and language of instruction within the other two boards, Y and Z.

TABLE III.31

CONTINGENCY TABLE FOR CALCULATING THE RELATIONSHIP BETWEEN COST PER PUPIL AND GEOGRAPHICAL LOCATION OF THE SECONDARY SCHOOLS IN THE CASE STUDIES[1]

			Location of School	
			Northern Ontario	Southern Ontario
Cost per Pupil of School	$1,750+	e	4.5	6.5
	<1,750	e	4.5	6.5

[1] o values suppressed from the published version of table.

$\chi^2 = 9.214$ 1 d.f.

TABLE III.32

SPEARMAN RHO CORRELATION COEFFICIENTS FOR THE RELATIONSHIP BETWEEN COST PER PUPIL, SCHOOL SIZE AND LANGUAGE OF INSTRUCTION WITHIN TWO SAMPLE BOARDS

Board Y	Cost per Pupil vs. Language (F M E)	$r_s = .132$	n.s. at .05 level
	Cost per Pupil vs. Language (M F E)	$r_s = .661$	n.s. at .05 level
	Cost per Pupil vs. School Size	$r_s = -.714$	sig. at .05 level
	Language (M F E) vs. School Size	$r_s = -.944$	sig. at .01 level
Board Z	Cost per Pupil vs. Language (F M E)	$r_s = .503$	n.s. at .05 level
	Cost per Pupil vs. Language (M F E)	$r_s = .402$	n.s. at .05 level
	Cost per Pupil vs. School Size	$r_s = -.006$	n.s. at .05 level
	Language (F M E) vs. School Size	$r_s = .665$	sig. at .05 level

It will be noted that the relationship between language of instruction and cost per pupil for board Y was much greater when it was assumed that mixed schools were most expensive, French schools next most expensive, and English schools least expensive. Neither relationship was significant at the .05 level. For board Z, on the other hand, language ranked French, Mixed, English, was slightly more highly related to cost per pupil than was language ranked Mixed, French, English. Again neither relationship was significant at the .05 level.

Cost per pupil was unrelated to school size for board Z but was significantly negatively related at the .05 level of confidence for board Y. Language (M F E) was inversely related to school size for board Y at the .01 level of confidence but for board Z it was positively related (F M E) at the .05 level of confidence. It is obvious that these two positive and negative correlations counteract one another when all the schools are considered as a group which results in no significant relationship between school size and language of instruction for the total group (see Table III.30).

3.5 SUMMARY

The following statements may be made with reference to the analysis of secondary school costs in the sample:

a) The differences in cost per pupil among the English, mixed, and French schools studied were not significantly different, no matter how the differences were measured.

b) The index numbers (based on 100 for the average of all schools) were as follows for English, Mixed, and French schools respectively: instructional salaries and wages: 99, 101, and 99; total instruction: 99.7, 100.5, and 99.6; and total ordinary expenditure 98, 101, and 101.

c) There was no indication of a trend to higher cost per pupil for the French as opposed to the English sections of mixed secondary schools.

d) Language of instruction was not significantly related to differences in cost per pupil, school size, or board when all schools were considered.

e) The only significant relationship found among the factors affecting the schools studied was that of cost per pupil with board. This seemed to be related to location in northern as opposed to southern Ontario.

f) Within boards, cost per pupil was related to school size for one board. There were counteracting relationships between cost per pupil and language for two boards. In one there was a positive relationship when the three types were ranked M F E and in the other a negative relationship.

4. ALLOCATIONS POLICIES WITHIN BILINGUAL BOARDS

4.1 RELATING EXPENDITURES TO ALLOCATIONS

4.1.1. Implications of conclusions on elementary and secondary schools

The findings presented in the previous two sub-sections raise very difficult problems of interpretation. To understand the nature of the problems, we may contrast the findings along two dimensions: elementary/secondary and across board/within board:

1. Elementary level: (a) across boards: The data revealed that, in two of three areas, the bilingual school boards cost more to operate than the coterminous unilingual boards. Such differences are related to the whole of a board's operations. When all schools of the sample were taken together, French schools cost more than English schools. (b) within boards: There were important differences in board expenditure patterns related to language. In two of the bilingual boards, French schools cost more than English schools; in the other two, the reverse occurred.

2. Secondary level: Most of the data analysis related to secondary schools tended to show that very little could be proved about the relationship between language of instruction and costs. (a) across boards: The only statistically significant finding was a trend for schools in the north to cost more than schools in the south. (b) within boards: No clear trends were evident with regard to language of instruction or type of school (English, French, mixed).

Since the methodology of case studies precludes definitive conclusions, interpretation of these findings and the differences along the two dimensions must be tentative. On the other hand, case studies also permit follow-ups on intuitions and hypotheses that might eventually prove to be verified. This is what we did.

The first step was to take stock of preliminary findings, roughly in the manner indicated by the summary above. (Not all the data were then available.) A few points were salient from this preliminary analysis:

a) The across-board differences at the elementary level were obviously, in part, a reflection of the fact that unilingual boards were included in the sample. On the other hand, the secondary sample, while not including a unilingual board, had deliberately been chosen to maximize differences between boards both in organization of French language instruction and in population proportions. Thus, one of the secondary boards had so small a proportion of Francophones in the population as to be virtually the equivalent of a unilingual board; the others represented a gradually increasing proportion of Francophones. Similarly, although not described for reasons of confidentiality, the "mix" of school types within boards also represented a full range of options -- varying from a straight split between unilingual French and English secondary schools to a mixture of progressively larger proportions of mixed schools.

b) The across-board differences, observable at the elementary level but not at the secondary, defied simple analysis. The total level of board expenditures is a sort of chicken-and-egg situation with respect to the system of provincial grants. The weighting of the grants to provide additional funds for boards serving Francophones has the effect of making it possible for these boards to expend more; additional expenditure could arise from "objective" need or from the simple availability of larger amounts of financial assistance from the province. On the other hand, there are built-in constraints on expanding expenditures to take advantage of potential revenues -- the most important being the obligation on the board to collect local tax revenues corresponding to a portion of expenditures. And, in the sample, three of the four elementary boards were separate boards with much smaller taxation bases than the public boards. This fact appeared to render unlikely the explanation that the boards were just using "easy money". However, given the near impossibility of proving cause and effect in a situation where a simple correlation was the only obvious fact, it was decided not to pursue in depth the issue of total board expenditure levels for elementary boards.

c) At the secondary level the picture was complicated by the fact that the boards apparently had been affected to a high degree by the existence of provincial spending ceilings which in previous years had brought expenditures into considerably closer alignment. In this respect, it will be remembered that one of the boards was in the upper third quartile, and the other three in the fourth quartiles, of their respective classes of boards for current cost of operations, as indicated by the data presented in the description of the sample; such boards would tend to be more affected by the spending ceilings. On the other hand, such consistent above-average spending might tend to confirm that, as at the elementary level, bilingual boards expend somewhat more than unilingual ones -- whether as a result of "need", or because of provincial subsidies, is not clear. In any event, our tentative conclusion was that the separation of chicken from egg was equally fruitless at the secondary level on the basis of case studies.

d) The within-board differences seemed to be much more promising as an area of enquiry: Why do some boards expend more on Anglophones than Francophones and vice versa? Why was it so difficult to detect a trend in either direction at the secondary level? All bilingual boards were receiving considerable grants for French language instruction, and it was likely that an explanation for the expenditure patterns could be found in their internal decision-making procedures.

A decision was made to survey the senior administrators of all boards in the sample to study the decision-making procedures related to allocation of funds for services to the two language groups.

4.1.2. The survey

The original design of the project called for a series of meetings to be held at the end of the data-gathering phase. Prior to finalizing the financial data for analysis, the research team intended to visit all the boards for discussions with senior administrators to acquaint them with the data, brief them on progress and invite them to point out anomalies and potential errors. The survey on decision making was planned, therefore, to coincide with these discussions.

The approach was intended to provide a maximum of flexibility. A brief questionnaire was prepared, consisting of open-ended questions. During the meetings, the contents of the questions were discussed and board officials invited to comment on them. At the close of the meeting a request was made that the board respond in writing to the questions to ensure that no misinterpretation had occurred. Thus, although not all boards provided a detailed written reply, all questions were dealt with at least once. The interviews were recorded for later verification of detail. The meetings took place during the months of January and February 1977.

The full text of the questions on the questionnaire is shown in Figure III.1. Question number 5 was included at the request of officials of the Ministry of Education.

4.2 OVERVIEW OF THE RESULTS OF THE STUDY

4.2.1. Limitations of results

The results of the interviews and questionnaire responses are highly idiosyncratic. Each board tended to respond in a way which reflected its unique situation. For this reason, a simple tabulation of responses would provide little comparable data. Nevertheless, the survey results were interesting to the extreme. As a means of dealing with the problem of reporting, our findings are divided into two sections. The first is intended to summarize general trends of both oral and written responses, as if one were dealing with a standard survey instrument; the remainder of this overview provides the summary. The second section is intended to generalize from the findings, taking into account other background information, to provide an analysis of the general problem of allocation procedures presently used and their relationship to the distribution of expenditures in school boards serving two language groups.

An important limitation of this survey should be pointed out: The study of school board decision making is a highly specialized field, and any intimate knowledge of the workings of a school board requires inordinately long periods of concentrated study and observation. Our

FIGURE III.1

QUESTIONNAIRE ON BOARD ALLOCATION POLICIES

(Page 1 of 3)

POLICY OF THE SCHOOL BOARD WITH RESPECT TO DIVISION OF COSTS BY LINGUISTIC SECTOR

1. Has your board adopted a formal policy according to which expenditures are divided consciously between services to Anglophones and services to Francophones?

2. a) Does a policy exist de facto which would have the same effect?

   b) If such is the case, please indicate briefly the main points of this policy, specifying the costs affected. Please append pertinent documents, where they exist.

3. a) Have the administrative officers of the board been asked to prepare reports bearing on the distribution of costs by linguistic sector?

   b) If such is the case, please specify their nature (documents strictly for internal use, reports to the board, replies to trustees' questions, published report, etc.), indicate their dates and append copies of, or excerpts from, the most recent documents.

4. a) Is there a policy aimed at relating expenditures in some fashion or other to the amounts received from the Ministry of Education as subsidies to education provided in French to francophone pupils?

   b) If such is the case, please specify how the policy works.

   c) If such is not the case, has the school board, to your knowledge, formally considered establishing such a policy in its debates in recent years?

FIGURE III.1

QUESTIONNAIRE ON BOARD ALLOCATION POLICIES

(Page 2 of 3)

At the request of the Ministry of Education, we ask you to answer the questions and to provide the data indicated on the attached sheet. We shall be very grateful for your co-operation in this matter.

Changes to the present system of financing minority language education have been suggested in some quarters. One possibility raised in public debates -- a purely hypothetical case, let us emphasize -- would be to create a system of "tied" grants, in which payment to a board would be based on the presentation of proof of relevant expenses, necessitated by the requirement that educational services be provided in the two official languages.

Could you comment on:

a) the eventual disadvantages of linking grants to expenditures;

b) the eventual advantages, and

c) the difficulties of establishing such a link, taking into account problems of:

   i) accounting;

   ii) the responsibility of the school board for the content of programs;

   iii) public opinion.

If your school board has debated, during the past two years (1975-6), questions related to the differential cost of education in a bilingual setting, please indicate these facts to our interviewers during your interview with them and discuss what existing documentation (e.g., press clippings) seems useful to consider.

FIGURE III.1

QUESTIONNAIRE ON BOARD ALLOCATION POLICIES

(Page 3 of 3)

Question No.5

RESEARCH ON THE DIFFERENTIAL COSTS OF FRENCH LANGUAGE EDUCATION

Kindly fill in requested data:

Board name:	Ordinary Expenditures		Extraordinary Expenditures	
	1975	1976	1975	1976
Grant Ceilings in $				
Total Expenditures				
Board's Rate of Grant				

FRENCH INSTRUCTION GRANTS	Actual Amounts Received		French Instruction Enrolment	
	1975	1976	1975	1976
for French as a first language in elementary schools				
for French as a first language in secondary schools (exclude schools for retarded)				

Please answer on another sheet:

a) What percentage of the French language Grant is being directed to French instruction?

b) How does your Board allocate these funds?

interviews and questionnaire were backed up by many hours of other types of study in the relevant school boards -- but not specifically focussed on decision making. By comparison with a true study of decision making at the detail level, our survey has no pretensions to insight into actual happenings. The persons dealt with were, without exception, administrators, and their view of matters represents that of persons preparing decisions for school board trustees, not that of trustees or the public at large.

Our conclusions, such as they are, must be limited to interpretation of processes and their implications rather than to the explanation of specific decisions on allocations in the boards studied.

4.2.2. Nature of responses

All school board officials consented to meet with us, to discuss the contents of the questionnaire in an open and frank manner and to provide such available documentation as was relevant to the contents of the questions. However, the analysis of the transactions and the follow-up revealed an essentially different approach to the survey at the elementary and secondary level. The elementary boards were, by and large, in a much better position for dealing with the issues in the questionnaire; the fact that their systems are clearly divided into unilingual French and English schools means that their framework of reference has greater clarity than in the secondary boards that have mixed secondary schools in operation. This was reflected both in the interviews and in the written responses. Two of the three separate school boards presented detailed written replies that were models of clarity and careful reflection; the third, because of its relatively small size and various other characteristics of its operation, provided almost all required information in the interviews. By contrast, at the secondary level the written replies tended to be extremely brief on the questions raised, mainly because the respondents argued that the questions were virtually inapplicable to their situations. Their explanations of the reasons why they were, in their view, inapplicable, were detailed, substantial and, at times, vehement.

Both at the elementary and secondary levels, the replies which, so to speak, disputed the line of questioning had this in common: They all argued special situations, in which the idea of separating out costs by current expenditures on one of the two language groups was not applicable. As one director phrased it: "Our additional costs are not the direct result of French language education. They occur because we operate schools in both languages -- be they French or English." A point with which we, as researchers, were entirely in agreement. The points made were so cogent that we spent considerable time studying the detail of them. An outcome of this was the identification of several prototype situations, where some costs would not be revealed by the methods used in the previous two sub-sections (III.2/3). These situations are analysed in the next sub-section of the report (III.5) and provide a divergent view of the costs problem.

4.2.3. Specific questions

1. Question 1. No board in the sample appeared to have adopted a formal policy dividing expenditures consciously between services to Anglophones and Francophones. That, at least, was the reply. Respondents apparently interpreted the question as referring to specific motions voted by the board to direct the budgeting process. On the other hand, some of the boards had adopted general motions referring to educational objectives of their boards in terms which, with some interpretation, might be construed as giving direction to the budgeting

process -- for example, affirmations of the intention to provide equality of opportunity to all students. Depending upon the context in which such motions were adopted, they might be highly directive in practice. (For example, if some policy issue had led either Francophone or Anglophone parents to complain that their children's rights were not properly recognized by board budget practices, such blanket resolutions can have specific application either to raise or to lower allocations to a language group, depending upon which group had made the complaint.)

2. Question 2. Several boards had *de facto* policies which had the effect of dividing expenditures consciously between the two language groups. These were ordinarily at the level of the practice of drawing up budgets. Some were the result of explicit board guidelines, others were identified as an "entente" between senior board officials responsible for the budgeting process. In addition, we observed that in certain cases the format of presenting budget documents had an equivalent result in practice. The *de facto* policies in some of the boards were in evolution, so that we were given insights into more than one system of policy per board. This variety has led, in fact, to the discussion that will follow regarding the implications of allocation procedures. It should be noted that, at the secondary level, owing to factors referred to earlier, there were cases where no *de facto* policy was reported as existing. As researchers, we observed that our respondents interpreted this question as referring to expenditures effected at the school level; however, even where the respondent reported no policy existed, it was clear to us that the central board services reflected explicit decisions on language lines -- e.g., the choice of supervisory officers and other personnel, sometimes arrived at on other grounds, resulted in a balancing between language groups as

regards expenditure levels. Obviously, this was perceived as a matter of structure rather than budget.

3. Question 3. The question was primarily intended to elicit documents to assist in the research. We found that, from time to time, school board officers and, occasionally, school principals are required to report on items related to distributions of costs by language sector. Some were obviously intended as quick responses to ad hoc questions. Others reflected considerable research and great insight into both financial matters and their implications for educational practice, providing us with material of great value for this study.

4. Question 4. None of the boards reported the existence of a policy aimed at relating expenditures to the amounts of grants received for Francophone students. Similarly, none of the boards had apparently considered the establishment of such a policy. On the other hand, our interviews elicited certain cases where, in response to questions from trustees and others, reports had been made to the board on these relationships. In three or four cases, at least, reports were made in order to show the impact of grants upon local taxation structures; some of the reports were general in nature, others related to specific decisions regarding extension of services to Francophones.

5. Question 5. This question provided detailed financial information for use in the case studies. The question regarding percentage of French-language grant directed to French instruction was answered only indirectly by all respondents, primarily because the systems of allocating budgets did not apparently provide a basis for direct answers. In some cases, "weighting" systems were referred to, under which budgeting procedures provided additional resources to some schools on the basis of numbers or needs of Francophone students. In other cases, it was pointed out that the costs incurred by the board

were for services to two language groups, so that a direct relationship was not appropriate.

6. Question 6. The commentaries on "tied" grants were very closely linked to the general outlook already described: The secondary level appeared particularly unreceptive to the question of tied grants, in part because no respondent could reconcile such a system with the operation of mixed secondary schools; in addition, there were very strong expressions of general philosophical disagreement both on grounds of board autonomy and on the question of providing additional services to one of the two language groups. The responses were not unanimous, however, and certain individuals (not speaking on behalf of their boards) noted that the implications of such tied grants might be to provide better services to Francophones, though there remained numerous reservations about the application of such a policy. The responses at the elementary level reflected a totally different tenor. In one board there was some concern that the system might work against the interests of the Anglophone minority in the board. In general, there was a willingness not only to point out the potential disadvantages but also to respond to the portion of the question dealing with advantages. The result was a more balanced response with a strongly positive bias. Among the possible disadvantages, the respondents noted the danger of excessive reporting procedures, though it was thought that such could be avoided. It was noted that in school boards operating below the grant "ceiling" French language grants currently may have no effect other than to reduce the local taxation level; therefore, tied grants would require a considerable reworking of priorities of all the programs in the boards affected in order to channel funds into services to Francophones. The tone can be judged from the following extracts from some respondents in different boards:

> ...It appears that this is the best way, under present circumstances, to insure that the subsidies are used for the purposes intended...For the simple reason that a group is a minority, it runs up against all sorts of obstacles concerning the teaching of its language; obstacles (that are) psychological, social, cultural, pedagogical and even political. It appears to us that the objective of such subsidies is to alleviate, at least partially, those difficulties.
>
> ...such a system would avoid many cases of friction between school boards and their taxpayers and between school boards and French Language Advisory Committees.
>
> ...if public opinion is sometimes negative it is precisely because of these near "diversions" of funds (to reduce taxes)...As in any other domain, public opinion is offended by practices of this sort. It would be better to abolish the subsidies (and everybody would then know it) or insure that they are used for the purposes intended. It is only on this condition that the public could then form an opinion.
>
> ...When it is time for negotiations with teachers, for example, one includes the subsidies for French language instruction as money available. If this hypothetical system, or another similar, came into being, the risk would be very much reduced that these funds would be used for negotiations with employees or any purpose other than the teaching of French.
>
> ...I think public opinion would be very favourable. It would make a lot of suspicions disappear.

The strength of the positive responses is roughly proportional to the strength of some negative responses at the secondary level.

7. Question 7. This question was purely related to information gathering during interviews and elicited responses on topics already covered above.

4.3 ALLOCATION PROCESSES AND DIFFERENTIAL EXPENDITURES FOR SERVICES TO DIFFERENT LANGUAGE GROUPS

4.3.1. Elements of the allocation process

The purpose of this analysis is to abstract from the numerous *de facto* allocation procedures studied, those elements that are important for understanding expenditure patterns on services to the two language groups. As far as possible, we shall not speak about the specifics of any one school board's operations but rather about elements found in more than one situation. The following appear to be the major elements that decision makers (whether administrators or elected trustees) must deal with:

1. Grant revenues and local tax base: These two elements are at the root of most decision making. It should be noted that the complexity of the grant system and its interaction with the tax base sometimes renders decision making difficult or, at least, problematic; we have encountered cases in our study where experienced persons with financial backgrounds have overlooked some of the implications of the grant structure and seriously underestimated the amount of provincial contributions for programs serving Francophones. Another factor of importance is that, in some school boards, very broadly based programs for teaching French as a second language have been created; in these cases, under the grant system in effect at the time covered by the study, the per capita grant for Anglophones studying French in elementary school was the same as that for Francophones enrolled in French language instructional units. As a result, the school boards concerned could effectively consider the "revenues" for the two groups to be equalized.

In cases where the two groups do not have equal "revenue" from the grant system, the allocation process is essentially related to deciding where the differential revenue will go. As noted above, no school board in the study had a systematic policy of introducing differential revenue for Francophone instruction as an item of information used for decision making (though pressures from certain French Language Advisory

Committees appeared to be altering this situation de facto).

One of the more interesting factors relating to decision making on taxes is the complex relationship between language, religion and tax base at the elementary level. The separate school boards generally have smaller tax bases than public boards; they also traditionally attract most Francophone students. Increasing services in such a way as to increase taxes has the result that some persons may be tempted to shift their taxes to the public system. The converse is, of course, possible. These factors may actively encourage either type of board to keep operational costs below the level recognized for grants and to use the French language grants partially as a mechanism to reduce taxes.

2. System constraints on operations: Every decision has to deal with what is possible, and this can include just about every fact concerning the operations of a board. A few of these constraints, important for decision making related to French language instruction, should be noted:

a) Existing physical accommodation: The location and configuration of buildings is the result of historical developments, many of which occurred with little long-term planning. This significantly affects decisions for providing separate accommodation for French language instruction.

b) Commitments to staff: At the secondary level particularly, negotiations with teachers have led to the fixing of pupil: teacher ratios on a board-wide basis. Many agreements provide for exceptions in response to needs such as special education, small schools and so forth. At certain times, unless contractual arrangements permit, providing additional staff services to Francophones may be ruled out. A second type of commitment, which may or may not be contractual, involves unilingual Anglophone teachers whose skills may not easily adapt to a mixed language environment where services to Francophones are being expanded. At times, attrition is the only route, given fixed pupil:teacher ratios, by which new Francophone teachers can be hired to replace them.

3. Public opinion: The factor is too obvious to belabour here. In our study we encountered a pervasive acceptance of what may be termed the "added cost" psychology of treating existing services offered to Francophones as being something "new" or "extra" and, therefore, a concession resulting in new costs. This outlook, like other psychological phenomena, is hard to document or describe, even though its presence is obvious. It is dealt with at length in specific situations as part of the next sub-section (III.5).

4. Educational needs and objectives: The allocation process is intended to result in the fulfillment of certain educational objectives, usually defined in terms of educational needs of the persons served by the school system. In an earlier, theoretical section, we have dealt extensively with the question of "need" as applied to the definition of services for Francophones. It should be recalled from that discussion that the concept of compensatory service needs was not widely recognized as a basis for decision making in the boards we studied, though many Francophones were strongly of the opinion that such recognition would be useful and, indeed, necessary for the development of their language and culture in Ontario conditions.

5. Legal requirements for minority language instruction: The decision making of boards tends to respect the letter of the law regarding provision of instruction to Francophones. Both at the elementary and secondary level there are specific requirements for providing instruction

in French where this is possible; the assessment of the feasibility is left in the hands of boards, subject to various controls and pressures. These provisions did not specifically affect the boards in the sample. There remain considerable areas related to the "spirit" of the law where boards must make contentious decisions. Francophone critics of present legislation frequently suggest it should make mandatory certain matters now under board control. In the sample, this related primarily to the general structuring of services at the secondary level under the terms of the following provision of the legislation:

> Where a board provides or is required to provide for the use of the French language in instruction in one or more classes in a secondary school and in the opinion of the board the number of French-speaking pupils who elect to be taught in the French language so warrants, the board shall provide an appropriate unit of a secondary school or, where practicable, a French language secondary school.
> (Education Act, 1974, Part XI, 255, 4.)

Where boards have both French language and mixed secondary schools, the need for an "appropriate unit" of a secondary school is not generally interpreted as meaning provision of a separate wing, as recommended by the Symons Commission. Decision on such matters frequently involves delicate assessments of the relationship between the letter and the spirit of the law.

6. The processes, information and models used for decision making: By this, we refer to the general methods used for organizing information required for decision making, the accepted frameworks of discourse used for talking about decisions, and the specific steps through which (by policy or practice) decision making proceeds.

7. The specific persons and forces in presence: Every decision is the resultant of a particular historical circumstance in which certain persons and forces interact. The decision may take into

account all the elements listed above, or it may completely ignore them.

8. Summary: The different elements listed above represent a very complex framework when studied in any given situation. For the present study, we shall deal only with Item 6, under two headings: information availability and models for allocation decisions.

4.3.2. Information availability

Decisions are not always made consciously. The choice of a topic for debate is sometimes more important than the sides taken on the issue. For this reason, the types of information provided for, and expected by, decision makers have a crucial influence in orienting the decision-making process. Our examination of the materials and information available in the boards studied revealed that the relation between language and finance was not easily dealt with in some cases. In this respect, one might divide the boards into the following categories as regards the type of information used for budgeting purposes:

1. Undifferentiated by language: In some boards, documentation used in budgeting provided little or no information on breakdown of expenditures by language group served. At times it was obvious that the budgeting process assumed the information as a given. This applied to one very small elementary board as well as to some situations where mixed secondary schools existed. In the latter cases, there was an understanding that funds destined for mixed secondary schools served two language groups and that the situation always deserved special treatment; the idea of a breakdown within the schools themselves was hardly conceived of as possible or useful (except on minor items such as library purchases). Persons familiar with the situation in detail were able to understand the implications of decisions not so much by the finances themselves as by knowledge of the exact staffing breakdowns and programs in the schools involved. Decision making did not go on

in a vacuum but, as regards language, was based on persons rather than dollars. In some instances this was encouraged, of course, by the existence of contractual arrangements regarding the pupil:teacher ratio.

2. Partially differentiated by language: These situations occurred where the basic school-level allocations were understood to occur on an undifferentiated basis for personnel, operations or both; different mechanisms existed for adding to these basic allocations on criteria that included language (e.g., adding on a certain percentage for the cost of French language textbooks).

3. Fully differentiated by language: Budget preparation documents or the basic budget documents themselves showed all expenses (or nearly all) broken down by language sector.

It is obvious that the more information is provided on language factors, the more they are likely to be used as criteria of decision making. Some boards appeared to have moved from an undifferentiated system to a semi-differentiated one, at least partially in response to pressure from Francophones interested in learning what use was made of grants. Since this occurred primarily in areas where mixed secondary schools existed, the absence of breakdowns at the school level rendered the utility of this financial information rather small for determining what kinds of services were offered in the schools. Of course, information was provided to trustees on programs and staffing, but the relationship to funding was not directly evident.

The cases where nearly complete breakdowns by language sector existed as part of the budgeting process were those where de facto policies had been created, aimed at equalization between the language groups. One could not say whether the budgeting process was a by-product of policies of equalization or whether the reverse was the case. However, the two did seem to go together.

It should be recalled from the survey that no board had a specific policy of relating expenditures to revenues. Although we saw several instances where reports had been prepared to orient board members to the source of funds for French language education, there appeared to be no case of systematically bringing forward such information as part of the budgeting process. It seems likely that furnishing such information would tend to decrease pressures for equalization (where they exist) and increase those for providing additional services to Francophones.

4.3.3. Models for allocation decisions

The mechanisms for making financial allocations within boards varied quite considerably. Our study revealed certain cases where a systematic effort was made to pass along to the school level a portion of the French language grants. This occurred primarily for supplies expenditures (textbooks and learning materials) and ordinarily was quite small as a proportion of total budget (though considerable as a proportion of supplies expenditures). The following types of allocations models were identified for staffing:

a) Equalization between language groups by cost: A deliberate effort to equalize expenditure between the two language groups within boards. (This might include a small differential weighting for textbooks and learning materials to favour Francophones.)

b) Equalization between language groups by pupil:teacher ratio: A deliberate effort to equalize pupil:teacher ratios between language groups. This involves making a proportionately higher expenditure for the group having the higher average salary. In the cases studied, this was translated into a higher expenditure for Anglophone teachers and a higher per-pupil expenditure for Anglophones.

c) Board-wide equalization with ad hoc assessment of perceived school need: This method involved starting with a general pupil:teacher ratio for the board as a whole and then doing ad hoc assessments of specific school needs.

d) Weighting for specific factors: This system is based on a general pupil:teacher ratio which is then weighted to take into account factors similar to those in the provincial grant system (special education, language, etc.). The actual effects of such systems on allocations by language group are extremely difficult to determine, unless the sole grant criterion is language. When multiple weighting factors are used, it is possible for the action of one set of weighting factors (e.g., school size, special education) to have an effect nullifying the weighting factor given for language. Thus, one might allocate a certain number of FTE's to schools on the basis of their French enrolments and additional FTE's to other schools for different factors; when all is added up, one might discover that the results are that both groups receive exactly the same amount on a per capita basis -- thus effectively nullifying the "advantage" given to Francophones.

Of these models, the first two were favoured by elementary boards, the last two by secondary boards.

4.4 IMPLICATIONS OF ALLOCATION PROCESSES FOR COST FINDINGS

This analysis of allocation processes gives a basis for understanding some of the cost findings summarized at the beginning of this sub-section. The following points may be noted:

a) Relationship of expenditures to allocations: In our discussions of preliminary data with board officials, there were certain cases where the data furnished by their accounting offices and analysed by us were in direct contradiction with perceptions regarding what funds had been allocated. It should be remembered that our data were based on actual expenditure, not intentions. In one or two cases, the source of the contradiction could be traced to a simple coincidence: Since our financial year overlapped with two financial years of the boards, seasonal fluctuations on items such as supplies could differentially affect actual expenditures by language group. (In addition, we noted an artifact of allocating funds to budgets of mixed schools without prior "earmarking". As the schools themselves decide on expenditures, the decisions may not always be related to the language problem directly. Given that the schools are to serve two populations and that they may incur costs in either sector in order to meet the joint need, this would appear to be quite a normal matter both technically and philosophically.)

b) Information on allocations and expenditures: In spite of what has just been said, we encountered at least one case where the expenditures made actually ran counter to the presumed operation of the allocation procedures. In one board where instructional salaries favoured Francophones by a significant margin, persons knowledgeable about the original allocations had believed that the results of the allocation would be a dollar-for-dollar equality for the two groups. Their surprise resulted not from a deliberate distortion of the process but rather because of two overlapping factors that were overlooked: the limited use of a weighting system with a differential incidence and the adjustments normally made in operations as budgets were administered. There was no indication that anything "wrong" occurred. From a technical point of view it appeared that the board accounting system had all relevant data but that reporting formats had not been structured in such a way as to detect these language-related differences after expenditures occurred. In fact, quite independently of our findings and prior to them, various changes in budgetary procedure were made in the board which, if anything, would tend to tilt the balance in the other direction.

c) Differences between findings at the elementary and secondary levels: Our initial analysis of the findings in the previous two sections noted that, whereas specific trends were found at the elementary level, very few of statistical significance were found at the secondary level. This appears to be a result of the difference in decision-making models used. The elementary boards tend to work with models (a) and (b) involving different forms of equalization; the fact that they have specific trends in one direction or another seems to result from the fact that equalization by cost, where used, was slightly distorted in practice and, where equalization by pupil:teacher ratio occurred, this tended to favour

Anglophones. At the secondary level, the preference for systems (c) and (d) did not result in differential allocations in favour of Francophones that proved statistically significant. It should be noted that in some of the boards concerned there was, in spite of this, a widespread feeling that sacrifices were being made in favour of Francophones and our data were greeted with scepticism; in addition, there were the specific cases, already mentioned, where additional costs appeared to exist that were not identified by our methods -- cases to be discussed in the next sub-section.

d) Relationship to needs in schools: The allocation processes differ somewhat in their approaches to assessment of needs. Models (a) and (b), based on equalization between language sectors, include the assumption that needs will be taken into account at the second stage of allocation -- that is, within language group. The *ad hoc* model presumes, of course, that need is taken into account in each decision. The final model involves assessment of need through "objective" criteria used for developing weighting coefficients.

e) Relationship to provincial funding policy assumptions: The weighting of the provincial granting system presumes that there are higher costs within boards having Francophone pupils. Models (a) and (b) appear to suggest that these costs affect the board as a whole; therefore, funds are distributed "equitably" between the two groups, both of which are presumed to benefit. This is subject, in some cases, to certain additional weights, particularly on items such as textbooks. Models (c) and (d) are not specific on this point, as both can distribute money either to both groups or selectively to one or the other.

5. THE LOGIC OF DIFFERENTIAL COSTS: ANALYSIS OF PROTOTYPES

The inter-board comparisons of costs dealt with in previous sections present only a portion of the total problem of differential costs. Many other costs are only identifiable within the framework of specific situations and events. For this reason, in the following sub-section we have selected from the case studies four prototypes illustrating costs and cost-service relationships not revealed earlier. Not only do they provide a "feel" for situations that it is impossible to get from mainly quantitative data, they also illustrate the complexities of trying to draw conclusions from case studies.

For the first three a relatively structured format is used, divided into two parts: The first section presents the data available which suggest that, in a given situation, a differential cost is associated with instruction in the two languages. We label the section "perceived added costs" to emphasize that perceptions expressed at the local level constitute the starting point. Rarely are such costs thought of as differential costs in the sense we have defined earlier; most people involved in each situation think naturally in terms of "added costs" of one sort or another. After the data are presented, alternative frameworks of interpretation are chosen with the intention of highlighting problems of interpreting data and showing how the interpretations relate to the costs shown in the previous section.

The main systems of logic involved are:

a) geographic: Given that a linguistically mixed population lives in an area, the organization of the school system must take this into account. There are interactions in costs between schools and between school boards.

b) grant system "expectations": The provincial grant system postulates that certain types of needs exist in mixed language situations and funds are provided accordingly. Comparing board revenues to expenditures in limited situations is frequently very useful, particularly since the results show how different assumptions can contradict commonly held perceptions.

From the beginning we must emphasize that the purpose is to present alternatives showing totally different perceptions of the same situation. If the logical arguments contradict one viewpoint, that does not automatically render the viewpoint invalid or suggest that someone is acting in "bad faith". Readers are urged to remember that the issues presented are eminently controversial in a linguistically and culturally diverse society, and that the authors of this report are not committed to a single viewpoint.

5.1. CASE 1: THE MAJORITY LANGUAGE GROUP AS A MINORITY

This case is presented first because it shows that even the simple notion of "added cost" -- when one is readily apparent -- cannot always be assigned easily to the Francophone group.

5.1.1. Perceived added costs

In one district studied, Anglophone pupils at the elementary level register almost exclusively in the public school board. As a result, the corresponding separate school board is overwhelmingly Francophone, the latter pupils outnumbering Anglophones by a ratio of about 7:1. In short, it is an example of a situation where the English language group forms a minority at the local level.

In the previous sections, looking at the cost of French language instructional units would have revealed an added cost resulting from situations where, as a local minority, Anglophones receive preferential treatment. Thus, our examination of the school-level data in this specific instance revealed that the English language elementary schools cost approximately 12.5 per cent more (ordinary expenditure) than the French ones. At the local level the costs are readily understood as being the result of having an Anglophone "minority". Their school characteristics are as follows:

a) The English language schools are smaller than the French. They are all in the 100-150 pupil ranges and the average school size is slightly more than half the average for French schools.

b) All the English schools have the full range of Grades K-8, with small enrolments, thereby requiring multiple grading.

c) Pupil:teacher ratios are lower than average (that is, more favourable) by a factor of approximately 11 per cent.

The local perception is that there is an added cost associated with giving special treatment to a language minority.

5.1.2. Alternative interpretations

Despite the apparently straightforward nature of the case, it is possible to give somewhat different interpretations:

a) The most divergent viewpoint possible is that the perceived added costs are really those of educating Francophones. The grounds for such a suggestion would be that the separation of the total potential pupil population between two school boards drives up costs for the whole area. The perceived cost differential favouring Anglophones would presumably be small compared to the total "lost" by having a larger number of small schools. Since the Francophone minority provide the virtual sole basis for the existence of a separate school board in the area concerned, the costs are therefore to be imputed to the Francophones. This reasoning requires an immediate counter-interpretation: The "added cost" is attributed not to a language minority but to a religious one. In this sense the argument is tangential to the question under study and will be excluded from consideration in relation to other cases.

b) The previous paragraph raises certain substantive issues on which exactly contradictory interpretations may be given. Thus, one may note that the unilingual English public school board in the same area has substantially higher per-pupil costs than the separate school board (no doubt an artifact of local taxation structures); thus, it could be argued that the public sector is more costly than the separate one and a unified public system would cost more than the present two. A similar line of counter-argument is possible regarding school size. The reasoning would be that (i) the average size of elementary schools in the two boards is very nearly the same as for the entire sample (in the 215-230 range if one excludes special education facilities for the retarded); (ii) the two boards in question are among the smallest in the sample, so that there is no proof that increasing the school boards' size would result in larger instructional units on average; (iii) therefore the split into two smaller boards does not necessarily increase costs.

c) With regard to the two previous lines of reasoning (paragraphs a and b) the authors must point out that the data from the case studies are certainly insufficient to draw generalizable conclusions in either sense. The study accepts as a given the policy under which separate and public school boards exist. Furthermore, the authors have pointed out in Section I the logical impossibility of proving or disproving global hypotheses based upon the idea that a unilingual model is a valid basis for drawing conclusions; the same logic applies to arguments related to eliminating the religious factor. We have drawn attention to the two lines of reasoning in order to deal explicitly with an issue which is never far from the thoughts of at least a portion of the people with whom we dealt in the study.

d) It can be argued that the apparent added cost of the English schools in the separate board is solely the result of smaller-sized schools; one would therefore be dealing only with a question of size, not language. This argument did not bear up under scrutiny in the case study. The size of the schools appeared to be dictated by the specifics of the population mix. Moreover, upon examination, it appears that the smaller schools in the board (150 pupils or less) have average costs only approximately 6 percent higher than the average for the board; the schools for the Anglophone minority, however, have average costs more than 12.5 per cent higher than average. The added costs appear to be related, therefore, to language. From the source data it also appears that this is closely linked to pupil:teacher ratios, which are approximately 11 per cent lower (i.e., more expensive) for the English schools than the French ones.

e) The logic of "expectations" built into the grant scheme for the province can also shed light on the situation. Because the policy of the separate school board is to teach French as a second language to all Anglophone elementary pupils, the result is that the board also derives grants for the Anglophones. The grants per pupil are exactly the same size, so that the revenues for the two language groups are exactly equal. Based upon this measure of "expectations", the board would appear to be making a differential "overexpenditure" in favour of the Anglophone students.

f) The interpretation of the "overexpenditure" in the previous paragraph -- if the logic applied can be considered to have any validity -- might be undertaken in two diametrically opposed contexts: Competition between school boards might be suggested as an underlying motivation. Conversely, it could be noted that in this case, where the Francophone group disposed of a near-monopoly of decision-making power in terms of numbers of trustees and numbers of officials in the school board, it was consciously acknowledged policy to favour the Anglophone minority on the grounds that their small numbers required differential treatment.

The discussion has brought out strong evidence that a differential cost was incurred in the schools -- one which would not have been revealed in the earlier inter-board comparisons. From interview data, it appeared that this cost was deliberately incurred with full knowledge of the board and its officials.

5.2 CASE 2: INTERACTION OF COST LEVELS FOR TWO SCHOOLS SERVING THE SAME GEOGRAPHICAL AREA

An example of how costs of education in a bilingual environment can be hidden by looking only at school-level costs is provided by one case studied extensively in our work. The school board in question had a mixed secondary school operating in an old and somewhat substandard building. Plans were made to improve the building by creating an extension and the board was preparing to act upon the plan, when local residents suggested an alternative. After discussion and negotiation, an alternative was arrived at, in which a second school was built and only comparatively minor repairs were made in the older building. The older building was converted into a French language high school and the newer building became a mixed language high school catering to a majority Anglophone population together with a small proportion of Francophones desiring to follow programs with more emphasis on English.

Our investigation of this particular case revealed that the costs associated with providing the particular option of two schools rather than one resulted in what the board officials perceived as a large added cost -- equivalent to close to $500,000 per annum. This included payments on the capital invested to build the new school, together with additional costs resulting from duplication between the two schools. It should be noted that, at the local level, it was perceived that the added costs were in the mixed school -- which means that, in the school-level analysis in the previous section, the costs would have appeared mainly under the costs of providing education to Anglophones. We shall analyse this case in two steps: First we shall go over the items which were considered to constitute added costs; secondly, alternative interpretations will be generated.

5.2.1. Perceived added costs

Our first step was to meet with board officials, analyse the situation and arrive at an agreed-upon list of items that constituted "added costs" in the historical sense. Board accountants then provided the exact financial costs of the items. The logic behind the list was as follows:

a) The main perceived added cost was the operation of the new building, and it was thought initially that this corresponded to the debenture payments on the building. Closer analysis revealed, however, that the board would have incurred some costs in any event: the rise in school population in the area had dictated that some extension be made to the older building. Local pressure for two schools simply resulted in a modification to the original plans. Therefore, it was agreed that the added cost was the difference between what the board would have paid for the extension and what the board actually paid for the new school. (Since the cost estimates for the extension were made at one date and discussion delayed the start of the new building for some time, the costs were adjusted to take into account the role of general inflation in the intervening period.) In addition, since an architect had already been engaged to do the original extension, the work done was "lost" and the board had to make a one-time payment to the firm involved. This leads to the following calculations (figures "scaled" for confidentiality):

Original cost of extension	$2,023,461
Adjusted cost of extension to cover inflation	$2,276,564
Actual cost of new school	$3,040,411
Architects' fees for extension	$ 63,000

To arrive at an annual cost, the figures were all calculated on a yearly basis equivalent to that used for the debenture on the school actually built (amortized over a 20-year term):

Debenture payments on new school	$353,970
Less estimated debenture on extension	234,031
Total additional debenture payments	119,939
Plus architects' fees amortized on same basis	6,476
TOTAL added cost on annual basis	$126,415

b) The operation of two schools rather than the originally planned single school resulted in increased costs for operation (items such as maintenance personnel, heating and so forth). There was no easy way to estimate what these costs would have been for the originally planned single school with its extension. It was also noted that operational costs tend to vary quite considerably from building to building, depending upon numerous structural and other factors. Dealing with precise operational costs for the specific buildings could have given results different from those resulting from slightly different structural configurations built at some other point in time; historical accident might have exaggerated or underestimated the added costs. The resolution to this situation was based upon the following logic: If one had built the original extension to the old school, it might have been "perfectly" occupied by the existing population. Instead, the creation of the two schools had resulted in underoccupation of the two buildings. On the one hand, the old building had been accepted as it existed and spare capacity resulted. The new building, on the other hand, had been built with spare capacity; at the time, it was felt that there could be enrolment fluctuations if Francophone parents and students exercised their option to attend the mixed school rather than the French one. Thus, as a result of decisions made to take into account the problems of giving services to a linguistically mixed population, the structures taken together had significant extra capacity. This extra capacity was considered to constitute "underoccupation" and to reflect the additional cost of having two schools rather than one. However, using the theoretical maximum capacity of the buildings would not have been appropriate, since the school board does not consider that secondary schools should operate at maximum capacity. As a rule of thumb, the board operates on the assumption that the "practical capacity" of a secondary school is approximately 90 per cent of theoretical capacity (to allow for various constraints such as scheduling courses requiring special facilities, etc.). For each of the schools, a calculation was made to determine the number of pupils by which it was underoccupied, compared to practical capacity. Converted to an index of 100, equivalent to maximum capacity in each case, the proportionate figures are as follows:

	Old Building	New Building
Theoretical capacity	100	100
x .9 = Practical capacity	90	90
Less actual enrolment	69	77
Underoccupation	21	13

Actual operational costs were calculated for all secondary schools in the board and converted to a per-pupil cost. This average cost was multiplied by the number of pupils calculated as "missing", the underoccupation. This gave the following results:

Added costs of operation:	Old building	$63,887
	New building	19,549
Total added costs		$83,436

c) The original reorganization into two schools had been accompanied by personnel changes and, to protect individuals, an agreement in principle ensued that persons transferred because of language would not lose "responsibility allowances" (such as payments to heads of departments) if the new organization did not justify the creation of such a post. Such "grandfather clauses" were thought of in initial discussion as a possible source of added costs. In practice no such payments were actually required.

d) The creation of an additional school did result in the creation of several posts of responsibility that would not have been required in a single school -- for example, an additional post of principal. Upon analysis, the salaries for such posts can be seen to consist of a basic salary and an added payment for responsibilities. In the budgeting system of this school board, the persons involved are included in the calculations of pupil:teacher ratios, and the basic salary component is allocated to schools on the basis of enrolment (subject to certain adjustments). Therefore, the "added costs" correspond to the responsibilities payments associated with administrative posts that would not have existed in the single school. Using the usual policies in force in the board, officials did an analysis of such posts. Their calculations show an additional principal, two directors of study, 6 major department heads and 3 minor department heads. The combined cost of the responsibility allowances for the posts was $35,650.

e) An exactly similar calculation was made to determine how many extra office staff were required under existing board policies. The additional salary of a clerical employee was set at $7,500 for the year in question.

In summary, the added costs for the schools in question were calculated to be:

Amortization of capital costs	$126,415
Added operational costs	83,436
Responsibility allowances	32,085
Added clerical staff	7,500
	$249,436

5.2.2. Alternative interpretations

At this point we may begin commenting upon the various ways of interpreting the situation studied. Some of the interpretations are, not surprisingly, contradictory.

a) The starting point for consideration is that the calculations have revealed significant apparent added costs totalling $249,436. This sum is less than the originally estimated amount of $450,000. However, it is clear that this difference is due solely to the decision to use the difference between the cost of the originally planned extension and that of the new school plus repairs to the old; however, if one does not deduct the cost of the extension, the total is $483,467 or more than the original estimate

Returning for a moment to the corrected estimate of $249,436, it is possible to calculate a somewhat higher apparent added cost. We begin by noting that the figures above can be divided into two components using the terminology adopted for grant regulations: extraordinary expenditures -- that is, the amortization of capital costs ($126,415) -- and ordinary expenditures, including the three other items ($129,021). In the previous sections of the report we analysed estimated ordinary expenditures by school. Using these data we can calculate the per-pupil ordinary expenditure for the two schools involved; this amount is considerably higher than the average in the board. The amount of ordinary expenditure exceeding the board average for the two schools is slightly less than $225,000, or nearly twice the $129,021 calculated above for ordinary expenditures. Using the new figure as an estimate and adding in the cost of amortization, one obtains an estimate of apparent added costs in the neighbourhood of $351,415 per annum.

b) The first point to note is that the historical/situational approach has revealed an apparent added cost which, in the minds of many persons in the board studied, is associated with the decision to create a unilingual school for Francophones along with a mixed school. However, it is clear that the added costs concerned are to be found in the mixed school catering primarily to Anglophones. If it were assumed that both groups always had a right to equal treatment, then one could draw the conclusion that the added cost is that of education for the Anglophone minority in the particular locality.

c) The second point is that the estimate provided by this particular historical/situational analysis is significantly less not only than that derived by looking at board averages for the two schools but even than that observable solely from the unilingual French school. The costs in that school above the board average for ordinary expenditure come to approximately $189,000.

d) A third problem exists in the assumption that the originally planned school with its extension would have been occupied fully up to total practical capacity. This is not the case in many schools in the province and is not an assumption which can be applied to buildings intended for occupancy of forty or more years. A similar amount of "added costs" could have resulted simply from a minor decline in enrolment in the area, even if both schools had been unilingual or if only one school existed.

e) One might also apply the logic of "expected" expenditures based upon the presumed "expectations" built into the provincial grant structure. Details of our estimates cannot be presented without revealing the identities of the schools in question. However, we examined the total sums of expenditure recognized by the grant system for Francophone students enrolled in French language subjects in the two schools; this sum was subtracted from the highest estimate of added costs obtained above (approximately $340,000). Then, since one of the schools qualifies for a special weighting factor in the grant scheme under the category of smaller French-English composite schools, we made a very conservative estimate of the additional expenditure recognized as a result of this factor. It was considerably in excess of the residual not accounted for under the grants for Francophone students. In fact, combining both sources of grants and applying the board's rate of grant, it appeared that the provincial grants alone paid all identifiable apparent added costs (including extraordinary expenditures for capital) without requiring local tax contribution. Since, under the provincial system, there is some expectation that local tax sources will be used for all expenditures, under this system of logic there would be a net underexpenditure as compared to "expectations" built into the grant structure.

5.3 CASE 3: AN EXAMINATION OF A COST-EXPENDITURE BALANCE SHEET

5.3.1. Perceived added costs

In one school board a tentative balance sheet of revenue and expenditures for French language students was drawn up. Suppose the total additional board expenditures for French language students were $1,000. The balance sheet would look as follows, adjusting all figures to their relative proportion of $1,000:

EXPENDITURES:

Translation services	25
Additional purchases of materials (Central board and schools)	186
Bus costs to take French students to unilingual school	62
French Language Advisory Committee	27
Additional teachers in French and mixed language schools	626
Additional central board staff	47
Fringe benefits on staff items	27
	$1,000

REVENUES:

Grant for French-speaking students (Recognized expenditures x grant rate approx. 76.5%)	508
Grant for French-English composite schools in board	214
TOTAL GRANT FOR FRENCH-SPEAKING STUDENTS	722
BALANCE ABSORBED BY TAXPAYERS	278
	$1,000

The balance sheet represents one way that costs in the board may be viewed. One cannot say that this is "correct" or "incorrect".[1] The implications to be drawn from it are subject to various interpretations, as the following remarks suffice to show.

5.3.2. Alternative interpretations

1. At first glance, it would appear that local taxpayers are paying $278 in "added costs" because of French language instruction. We can

call this "apparent added costs" because it is so readily apparent.

2. Taxpayers are expected under the provincial grant system to pay a certain percentage of all expenditures for education. This "expectation" is reflected in the rate of grant used for equalizing tax burden. In this school board, the rate of grant for the relevant year was approximately 76.5 per cent of recognized ordinary expenditure, so that the expected burden on taxpayers of any expenditure is the balance to make up 100 per cent: that is, 23.5 per cent. In fact, the amount absorbed by local taxpayers according to the calculation on the balance sheet was $278, but the expected amount was $235. Thus, the difference between these figures -- $43 -- is what might be considered an "overexpenditure" beyond that "expected" in the grant scheme. This is one-sixth of the original "apparent added cost" of $278.

3. Some of the items included in the calculations might have been excluded on various grounds, had the balance sheet been drawn up with slightly different assumptions. For example, even though provincial grants are given for transportation, such grants are not shown on the balance sheet. In some unilingual boards, similar transportation costs are incurred to provide freedom of program choice quite unrelated to language; such choices are financed at local option out of the usual transport grants. On grounds such as these, one might have included a portion of transport revenues or excluded the expenditures. The amount in question is $62; this is larger than the $43 "overexpenditure" calculated above on the basis of expectations built into the grant scheme. Our examination of the allocation for "additional central staff" also indicated that the additional persons might have been on staff in a unilingual system -- or might not have been. In fact, different allocations of central responsibilities could have "saved" a similar sum while conserving the bilingual nature of the central services offered:

Depending upon who does the interpreting, the expenditure could be included or excluded. The amount involved is $49 (including a portion of fringe benefits).

Thus we find that, if different assumptions are used, it would be possible to exclude expenditures of $111, the sum of transportation ($62) and central staff ($49) costs. This is more than twice the amount calculated above as "overexpenditure" compared to "expected expenditure" and turns the "apparent added cost" into a net "under-expenditure".

In conclusion, we should note that there is no way of saying which of these interpretations is "correct". All are correct according to one set of assumptions and all are equally subject to being contested on one ground or another.

5.4 CASE 4: TRADEOFFS IN BUSSING AND EDUCATIONAL SERVICE

The case studies provide useful lessons in the difficulty of generalizing about mixed language situations. One example illustrates the way that different types of analyses lead to contradictory conclusions. The background to this prototype is provided at various points in earlier sections, where it has been noted that minority group members may prefer to make tradeoffs between lower service levels at a nearby school and higher service levels at one to which access is only by bus.

5.4.1. Perceived cost-service relationships

The example is provided by two towns, Town A and Town B. B is larger than A in total population; it has two high schools -- one French and one English. Town A has a single, mixed high school. French language students from Town A who wish to obtain a complete French language program are bussed to Town B and attend the French high school there. How is bussing related to services?

The most obvious interpretation of the situation is the following: French language students are given the opportunity to study in their own language by the bus service; they are also allowed to study in a mixed language environment if they do not wish to travel to the other town. The bussing permits the service to exist and the cost appears to be that of a service to Francophones. In addition, the mixed secondary school in Town A has a lower pupil:teacher ratio than other schools in the board and, therefore, costs more. This additional cost also appears to be a cost of providing additional services to Francophones.

5.4.2. An alternative interpretation

The next set of interpretations depends upon more detailed knowledge of the services provided in the mixed secondary school. By at least one measure, it provides a relatively low level of service to Francophones attending it: There are very few courses available in French and most students are obliged to do their later years of work in English; this is dictated by school size. (Obviously, if the number of courses in French were dictated solely by lack of interest among Francophones, then this would not constitute a lower level of perceived service.)

With this as background, let us develop a small scenario: The school board might decide, in the light of fiscal problems, to make the following cost tradeoff: all Francophone students could be bussed to Town B, where they would be educated in a French language high school with a lower pupil:teacher ratio; the mixed school would be converted into a unilingual English school and the pupil:teacher ratio lowered to the board-wide average; the net saving in teachers' salaries would pay for the bussing and leave a net "profit". What might this do to service levels? To begin with, the impact would be most noticeable on the Anglophones attending the previously mixed secondary school; its size would be drastically reduced, to such a point that it would probably not be considered viable; if it did continue in existence, the Anglophone students would have much reduced course offerings, since the variety of English language courses in the upper years was made possible by the heavy Francophone participation. The Francophones, on the other hand, would be attending a secondary school with a much larger selection of courses. From this scenario it might be deduced that the presence of the Francophones in the mixed secondary school tends to increase the level of service to Anglophones; the "added costs" might therefore be attributed to the latter. On the other hand, there is reason to believe that some of the Francophones might opt for instruction entirely in English rather than travel to another centre; this would attenuate the lowering of services to the Anglophones but provide for the Francophones who remained at a lower level of service (since everything would be in English). Meanwhile, the logic of the situation has turned up the fact that the bussing costs for Francophone students in the existing circumstances are probably not a net cost but rather a net saving -- owing to the higher pupil:teacher ratio in the unilingual French school.

The scenario has permitted us to carry out a logical reversal, probably too neat to be valid: The costs of the mixed secondary school have been attributed to maintaining a higher level of services for the Anglophone pupils rather than the French ones; the costs of transporting the Francophone students to Town B turn out not to be a cost but rather a saving, owing to the higher pupil:teacher ratio in the unilingual French high school.

In fact, the case study suggested that there is considerable local support in Town A among both language groups to maintain the mixed secondary school. Changing its structure in the fashion outlined would probably be regarded by many as a reduction in service level and the present situation keeps everybody reasonably satisfied.

The logic of mixed language situations is, indeed, complex. This last example simply drives the point home: Services are provided to a linguistically mixed population and it is often impossible to arrive at an agreed-upon division of costs and benefits.

5.5 IMPLICATIONS

5.5.1 Validity of previous cost analyses

The first type of implication to be drawn from the study of prototypes refers specifically to costs. The prototypes have permitted us to discover costs that would not be revealed by the type of statistical analysis done in previous sections of this report. Let us go over the cases briefly to summarize:

a) Case 1 identified perceived added costs associated with the Anglophone students in a school board having a large majority of Francophone students. The alternative logics presented did not contradict the finding based on perceived added costs.

b) Case 2 identified an added cost associated with a mixed secondary school in which the majority of students are Anglophones. The alternative logics suggested that most of the added cost would have been visible anyway from the examination of data for the Francophone students alone. However, the portion of expenditures for the capital costs of the new building would not have been identified in previous analyses.

c) The expenditures shown in the balance sheet of Case 3 would all have been identified in the data gathering phase as attributable to French language instruction. However, a couple of them would not have been identified as added costs. The additional central staff and the transportation costs would only appear to the extent that the amount expended on Francophones exceeded on average that of the Anglophones. If one rejects the alternative interpretations, then these added costs are underestimated by our previous analyses. If one accepts them, then the added costs are not underestimated.

d) The added costs in Case 4 for the mixed school were identified

> in earlier analyses to the extent that the costs exceeded the average for the board; the transportation costs to the French language school would have been identified to the extent that the average number of students transported exceeded the board average (this was the case). The alternative logics suggested that the added costs so identified were difficult to attribute solely to the Francophones but could be attributed to the two groups taken together. This point is irrelevant to the general issue of whether the previous analyses would identify the costs but can be considered of political significance.

By cross-checking with actual figures for the case studies, we have attempted to determine the degree to which the earlier analyses underestimated the specific costs associated with the prototypes. The worst possible case of an underestimate was in Case 1, where the average per-pupil expenditure was about 12.5 per cent higher for the Anglophones and would not have been visibly attributed to the mixed language situation; this case was, however, totally exceptional and, owing to the relatively small size of the school board and the schools concerned, would have had a negligible effect on the total picture presented. In Case 2 the maximum underestimate was less than one half of one per cent of board expenditures. For the other cases the underestimate was so small as to be negligible. Thus, the only prototype that had potential for major impact on the previous figures was the case which was unique in the sample and which we have found to be of only very small consequence for the total sample studied. It should be pointed out that the expenditures in Case 1 were very significant for the board in question. This suggests the utility of some exceptional mechanism for examining costs of situations where Anglophones constitute a relatively small minority in a school board.

5.5.2 Utility of alternative logics

The alternative logics introduced into the discussion were of utility primarily to show how easy it is to undermine an apparently clear case of added costs. Case 1 was the exception to this rule. It is probably significant that the costs were due almost solely to a higher pupil:teacher ratio in the minority schools. (We shall return to this point later in discussing board allocation policies.)

The validity of the different types of alternative logics depends upon who judges the validity in each case. For example, the religious argument regarding the costs of a separate school system is very old and is not likely to disappear. The logic regarding "expectations" built into the grant system is subject to serious doubt: To begin with, provincial policy has never clearly stated that such an expectation exists; therefore, one may always question the entire foundation of the approach. Secondly, in public debate there is a frequent tendency to seek to apply this expenditure expectation to a single school; the data available suggest that this may sometimes be appropriate -- but certainly not always: in some cases, even if the logic is accepted, it clearly should apply to board expenditures as a whole, not to a fragment of them. Most of the other logical frameworks used were simply ad hoc arguments based upon each situation; they were certainly not generalizable beyond the facts of each specific case. The one which might be questioned most strongly was that presented in Case 4, where the idea was put forward that a saving could be achieved by transferring students between schools: it is almost impossible to avoid overlooking some factors that would modify the cost estimates; in addition, provided that both Anglophones and Francophones agreed to the existence of the school, the whole discussion would be invalid in a practical, political sense.

In conclusion, it should be noted that the alternative logics frequently involved the manipulation of relatively detailed data within a framework of analysis drawn up for the purposes of research; many of the basic assumptions of the analysis might not, therefore, be acceptable to many persons.

5.5.3 Attitudinal implications

The context of this whole discussion is highly political. Attitudes have been developed by decades of public debate. How, one may ask, does this analysis relate to the background of public attitudes? To assess this, the authors must draw subjectively upon the data gathered in the course of the case studies. The following is a statement of their personal views arrived at through this project of research.

Each of the prototype cases began with the presentation of a set of perceived added costs. Then additional data and arguments were introduced in an attempt to find potential flaws in the original perceptions. The results of the procedure may have been troubling, perhaps even totally unacceptable, for many readers. In fact, some readers who are able, despite our precautions, to identify the specific situations and who have their own viewpoints, are very likely to be of the opinion that the prototypes distort the facts. We hope that no such distortion has really occurred but rather that several issues have been clarified.

a) In discussing the cases of perceived added costs, it should be kept in mind that these are very brief summaries. The school board officials, employees and other persons with whom we met to obtain data all had a very sophisticated understanding of the complexities of the situations concerned. NONE OF THEM EVER PRESENTED A SIMPLE ONE-SIDED CASE. When they made assumptions in discussing costs with us, they were frank about the assumptions and generally aware of their inherent limitations.

b) It is interesting to note that the summaries of perceived added costs resemble, in their brevity, the arguments that have been presented in public debates of similar issues during the last few years. Although many individuals participating in such debates have a very deep and full understanding of the issues, when matters are presented in public the tone changes and the cases tend to take on the simplicity of the summaries. The public as a whole is usually only vaguely aware of more than a few items of information. It is against such a background that one must assess the implications of different logical arguments.

c) In almost all discussions of costs of minority language education, the participants have a personal recollection of historical events: Prior to a certain date, the Francophones probably did not have certain services; then a decision was made to create new services; in the interim costs have gone up; it follows that the added costs are to be attributed to the Francophones. This logic is generally accepted by most participants encountered in the research project, even among Francophones who may question majority group views on many issues. Historical developments have created a clear psychological reality. Everyone has a personal recollection of how Francophones have struggled to obtain more services, and "common sense" prompts everyone to believe both that there are added costs and that they should be attributed to the efforts of Francophones.

d) Against the overwhelming weight of personal belief in such common sense, other arguments are very weak indeed. If one looks back over the alternative logics presented, it is clear that most are specific. Their utility for argumentation depends upon the extent to which participants in debate can assimilate and handle the specifics of facts and figures in a complex logical argument. In this context, the only argument likely to have any political utility in most situations is the one based on "expectations" in the grant system. It is not surprising, therefore, that it is frequently used by Francophone groups arguing the case for better services.

e) In the one case examined in our research where Francophones were obviously dominant in decision-making power, our interview data indicate clearly the acceptance of the idea that a minority required special treatment. THIS WAS ALSO TRUE of many Anglophones in the boards where they held most decision-making power. However, because of the psychological attraction of the "historical logic of added costs" some of the persons who favoured "special treatment" assumed that this meant simply giving Francophones equal treatment. In other words, equality of treatment was a privilege, not a right.

f) The implications for conflict are important. The prototypes have demonstrated how easy it is to have a conflict of views on the same situation. In real life, when decisions are being made, it suffices to introduce a small amount of emotion into the choice of vocabulary to produce an explosive polarization of opinion.

g) In the previous discussion, no mention has been made of the framework chosen by the authors of this report in designing the study: namely, that additional costs of creating a situation of equality should be considered a shared cost, attributable to both language groups. The principle may be illustrated by analogy with allocating costs of another public service, the Fire Department. In any given year, only a small fraction of the population calls the Fire Department. Yet one would not ordinarily allocate costs solely to the "users". There is reason to believe that everyone in society benefits from the existence of a system of fire prevention; the cost is probably, therefore, a common cost of all members of society -- the price of community security. In a similar sense, the costs of having a society of equality between two language groups may easily be considered to be shared between both, not attributed to one.

g) If one compares the abstract notion of equality as a shared cost to the other types of logic presented, there is a major difference in implications for conflict. The historical logic of added costs is persuasive and omnipresent. As a counterbalance, the alternative logics have the distinct advantage that they are concrete, easily argued and, if one has all the data, not hard to grasp. The advantage of the alternative logics is their directness for decision-making; the disadvantage is the ease with which direct conflict can occur. By comparison, the abstract notion of equality as a shared cost is intangible, hard to argue on the basis of specifics and, therefore, hard to grasp. As against these disadvantages, it has one major strength: It tends to reduce specific conflicts because of its abstractness and the difficulty of contending with a principle in a specific situation. If accepted, it is a powerful antidote for the historical logic of added costs.

This section of the report has no conclusion. At best, it offers suggestions for thought.

6. FROM DIFFERENTIAL COSTS TO DIFFERENTIAL SERVICES

The data presented in this section can be viewed from a distance as providing a case in favour of the idea that schooling in mixed language situations costs more than in unilingual ones. Our analysis was based upon two converging approaches:

a) Under the first approach (III.2-3) cost data were compared to determine cases where bilingual boards cost more than unilingual ones and French schools more than English ones. The case studies suggest:

- higher costs in bilingual boards than unilingual ones at the elementary level (III.2)
- higher costs in French schools than in English ones at elementary level.

Putting a precise dollar figure on these cost differentials is probably meaningless out of a specific context. In the two bilingual boards with higher cost than the respective unilingual ones, the costs were 11.2% and 18.7% higher. (On the other hand, in one area the reverse phenomenon showed a difference of 10% in the other direction.)

b) Since the examination of secondary data resulted in only one statistically significant trend , a second approach was adopted, based on a study of specific prototype situations (III.5). Depending upon the logic used, one arrived at clear cases of differential costs for education in a bilingual setting:

- differential costs in favour of a small English language minority,
- costs of providing two schools to serve one area,
- costs shown on the "balance sheet" of a bilingual secondary board,
- costs of providing multiple options to a mixed population in a small town.

Putting the two findings together, one for elementary and the other for secondary, a case can be made that there are differential costs at both levels. On the other hand, the examination of board allocation procedures raises serious doubts as to the implications of the cost differentials found. These appear to be an artifact of different budgeting procedures, and the relationship of these costs to "objective" need in specific schools may not be direct.

The policy implications of such findings cannot be assessed in the absence of data on services and needs. Two hypotheses present themselves:

a) The allocations carried out by boards adequately meet needs of both groups on an equitable basis. In this case, one would not expect to find significant differential needs unmet for the French language group.

b) The allocations carried out by boards do not adequately meet needs of both groups. In this case, our study should have indicated areas of significant unmet needs among the Francophones.

The next section presents the case leading us to believe that, in respect to certain services there are unmet needs corresponding to hypothesis (b). Obviously, our study has attempted to consider general trends across all boards in deriving these areas of need. Within individual boards there may be cases involving other specific services, but these are not reported on here.

FOOTNOTES

1. By "correct" or "incorrect" in reference to Case 3, we are dealing solely with the underlying approach to drawing up a balance sheet. In the case being considered we find, in fact, an actual error in understanding of the grant system. The line item on the balance sheet "grant for French-English composite schools in board" had been calculated by a person outside the board and communicated to the board officials. Upon investigation we discovered that the original calculation had fallen into a typical error respecting the grant system.

The calculation of the entitlement of the board for composite schools was correct up to the last stage, at which the entitlement was multiplied by the board's rate of grant, effectively reducing it by some 23.5 per cent. This last reduction is not correct. Therefore, the balance sheet does contain an error and underestimates board revenues for French language schools.

Using the corrected figures, the last lines of the balance sheet would read as follows:

REVENUES

Grant for French-speaking students (Recognized expenditures x grant rate approx. 76.5%	504
Grant for French-English composite schools in board	280
TOTAL GRANT FOR FRENCH-SPEAKING STUDENTS: ...	784
BALANCE ABSORBED BY TAXPAYERS:	216
	$1000

SECTION IV: AREAS OF SERVICE NEED AND POTENTIAL INEQUALITY

1. IDENTIFICATION OF AREAS FOR REPORTING

The case studies lead us to believe that there are three major areas where Francophones have educational needs that are not being adequately met by the present educational system. They are:

a) Educational services provided in mixed secondary schools

b) Cultural resources in both French language and mixed schools

c) Support and special services

The presentation and discussion of these topics is extremely difficult in the context of the present research study. The main reason is, simply, that the case study methodology employed precludes us from drawing definitive conclusions on any of the topics. In order to do so, more and different types of information would have to be gathered. Therefore, this section must begin with a note of caution: we are not presenting definitive conclusions but rather evidence suggesting what might be the conclusions of further research.

The selection of the topics resulted from a long process of examining data in the case studies, regrouping problems and reexamining the data. In the end, we are fairly confident that the areas of need have been correctly identified, but the information does not permit us to do more than present a summary outline of problems.

In speaking of educational needs and related services, it is important to recall the earlier discussion (II.2.4.4) of the difference between "equal opportunity" (treating everybody alike) and "compensatory opportunity" (treating people according to their needs). Two of the areas selected may involve failure to provide "equal opportunity": mixed secondary schools and support and special services; the other two are more closely linked to the need for "compensatory opportunity": cultural resources and education in newly created schools.

The data presented in the following discussions is derived from three sources: the principals' September Reports for 1975, interviews in school boards during the case studies, and the questionnaire sent to principals of all French language and mixed secondary schools.

2. THE DILEMMA OF MIXED SECONDARY SCHOOLS

The word "dilemma" may be aptly applied to the matter of services in mixed secondary schools. If it is true, as our data would seem to indicate, that some services are deficient, such a conclusion does not lead to any simple, easy solution. For various reasons, there may be no alternative to mixed secondary schools in some portions of the province; alternatives, where they are possible, may not be acceptable to the populations affected; and there are obvious limits to the improvements possible within the existing schools. Furthermore, even discussing in a critical vein the services available is subject to numerous possible misinterpretations - for example, that it is intended to criticise the dedicated educators who work in the schools and seek to provide the best services possible to Francophones or that the research is intended to endorse a simple radical solution to a complex problem. Nothing could be farther from the truth. Our aim is to point to available indications of service levels and to use them as a base for calling attention to what may prove, upon examination, to be a real problem. The discussion will begin with an outline of major service indicators, then conclude with a discussion of the situation in which potential solutions may have to be found.

2.1 INDICATORS OF UNMET NEED AND POTENTIAL INEQUALITY

The most important measures of level of service for mixed secondary schools appear to be the following:

a) staff ratios

b) program offerings in French

c) student course selection patterns

d) availability of suitable French language instructional materials

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The last of these is dealt with in a later section on cultural resource needs and will not be considered here. Because our initial examination of these service indicators suggested a potential pattern of inequality, it was decided to attempt to determine if any assessment could be made of the impact on students; in consequence, two additional indicators were examined: dropout rates and retention rates.

2.1.1 Staffing Factors

As has already been indicated in discussing costs, staff ratios for mixed secondary schools tend to be higher than for unilingual French or English schools. Table IV.I shows full-time equivalents (FTE) per 1000 students for each category of staff for English, French and mixed schools separately. Generally speaking, it will be noted that FTE/1000 students is only remotely related to school size in terms of enrolment. On the whole, FTE/1000 for mixed schools are highest (60.4) followed by French (58.8) and English schools (57.6) in descending order. Because of erroneous coding by the schools in filling out the September report, one mixed school with an enrolment of over 1000 students was reported to lack entirely office staff and certain technicians; allowing for this underestimate, mixed schools would have higher staffing levels for office staff than either French or English schools.

From this it does not follow, however, that the mixed schools provide necessarily a higher level of service to Francophones. The differences in staffing level are only marginal, in the order of 4.8 per cent more teachers in mixed schools than English ones and 2.7 per cent more than in the French. Although we have not attempted to make a detailed estimate by school, it is clear that Anglophone teachers make up a sizable proportion of the total teaching staff and,

TABLE IV. 1

FULL-TIME EQUIVALENTS (FTE), FTE PER 1,000 STUDENTS (FTE/1,000) BY CATEGORY OF STAFF FOR ENGLISH, FRENCH AND MIXED SECONDARY SCHOOLS (1975-76)

Type of School	School Code	Enrolment Range	Teachers		Office Staff		A.V. & Lab. Technicians		Teacher Aides		Other Staff	
			FTE	FTE/ 1000	FTE	FTE/ 1000	FTE	FTE/ 1000	FTE	FTE/ 1000	FTE	FTE/ 1000
ENGLISH[a]	AE	200- 399		65.0		6.3		-		-		-
	BE	600- 799		56.7		5.3		-		2.1		-
	CE	800- 999		54.9		4.9		-		-		2.4
	DE	1300-1499		60.1		5.2		.7		-		-
	FE	1300-1499		55.3		4.8		.7		-		2.7
TOTAL	5	8000-10000	500-525	57.6		5.3	6.0	.7	2.6	.3	6.0	.6
FRENCH	AF	200- 399		58.8		5.5	1.0	.9	-	-	-	-
	BF	1000-1299		57.1		4.8	1.0	.8	-	-	-	-
	CF	600- 799		57.3		5.1	1.0	1.3	-	-	-	-
	DF	800- 999		62.3		7.3	1.0	1.0	b	b	-	-
TOTAL	4	4000-4500	225-250	58.8	23.0	5.6	4.0	1.0	b	b	-	-
MIXED	AM	200- 399		63.0		5.5		-		-		3.5
	BM	400- 599		60.8		5.1		1.7		-		-
	CM	1000-1299		61.1		6.1		.9		-		-
	DM	800- 999		56.9		6.1		1.0		2.0		-
	EM	1000-1299		63.0		-		-		1.0		-
	FM	400- 599		61.8		5.3		-		-		14.1
	GM	1500-		57.0		5.7		.6		1.3		-
	HM	1000-1299		60.9		5.6		1.0		2.0		-
	IM	600- 799		64.8		5.2		1.1		-		-
TOTAL	9	7000-8000	475-500	60.4	39.0	4.9	5.7	.7	7.0	.9	9.3	1.2

[a] English schools selected from 3 typical enrolment ranges included in sample.

[b] Figures deleted to protect confidentiality.

Source of Data: Ontario Ministry of Education, 1975.

in most cases, the majority. Therefore, if one considers accessibility to teachers in the native language, the staff ratios cease to be favourable to francophones in mixed schools. This is a well-known fact which requires no detailed statistics to prove. But it does bear keeping in mind: because more teachers are employed and more money is spent per pupil, it does not follow that service levels are higher under all definitions of the concept of "service".

Further analysis of staffing failed to provide clear indications of higher or lower service level in mixed schools. Thus, as shown in Table IV.2, academic qualifications of school principals, as indicated by number of degrees held, showed little variation between school types within school boards. On the whole, 50 per cent of the principals had Master of Education (M.Ed.) degrees and the proportion of such principals among the three types of schools was similar.

Table IV.3 presents a similar analysis of experience of teachers divided into elementary, secondary, other related and total experience. Means and standard deviations have been calculated for all types of experience. In addition, t ratios were calculated for differences between teachers in English and French schools; since breakdowns of teacher experience by language were not available within mixed schools, such tests could not be applied to them. A clear pattern emerges in the comparisons between teachers in French and English schools. For total experience, there is a statistically significant difference between the two; English teachers have more than 2.6 years more experience on average than the French; teachers in mixed schools have total experience approximately midway between the two, perhaps corresponding to a situation where more experienced Anglophone teachers

TABLE IV. 2

DISTRIBUTION OF NUMBER OF DEGREES HELD BY PRINCIPAL FOR ENGLISH, FRENCH AND MIXED SECONDARY SCHOOLS (1975-76)

	English Schools	French Schools			Mixed Schools		
	Percentage Distribution (All Schools)	School Code	Degree(s)	Number of Degrees	School Code	Degree(s)	Number of Degrees
		AF	B.A.	1	AM	B.A.	1
		BF	B.A.	1	BM	B.A., M.Ed.	2
		CF	B.A., M.Ed.	2	CM	B.A.	1
		DF	B.A., M.Ed.	2	DM	B.A.	1
					EM	B.A., M.Ed.	2
					FM	B.A., B.Ed., M.Ed.	3
					GM	B.A., M.A.	2
					HM	B.A.	
					IM	B.Sc., M.Sc.	2
No. of degrees:	(1) (2) (3)			(1) (2) (3)			(1) (2) (3)
No. of schools:		4		2 2	9		4 4 1
Percentage of schools:	45% 55%			50% 50%			44% 44% 11%

Source of data: Ontario Ministry of Education, 1975

TABLE IV.3

MEANS AND STANDARD DEVIATIONS OF TEACHING AND OTHER RELATED EXPERIENCE AND CORRESPONDING t RATIOS[a] BY SCHOOL BOARD AND TYPE OF SCHOOL FOR SECONDARY SCHOOL TEACHERS (1975-76)

School Board	Type of School	Range of Number of Teachers	Teaching Experience In Years						Other Related Experience			Total Experience		
			Elementary			Secondary								
			Mean	SD	t	Mean	SD	t	Mean	SD	t	Mean	SD	t
A	English	180-190	1.65	4.60	1.58	9.14	5.98	2.92**	.66	2.47	1.07	11.45	8.05	.81
	French	60- 70	2.73	5.03		6.67	5.23		1.08	3.24		10.48	8.82	
	Mixed	300-310	1.36	3.86		9.17	6.79		.76	3.50		11.30	8.52	
	Total	550-560	1.61	4.28		8.88	6.41		.77	3.16		11.25	8.39	
B	English	240-250	1.01	3.59	1.74	10.52	6.35	6.49**	.04	.30	3.21**	11.57	7.46	3.86**
	French	130-140	1.71	4.02		6.45	4.89		.37	1.58		8.52	7.25	
	Mixed	50- 60	.75	2.96		9.44	5.85		.41	1.78		10.59	7.25	
	Total	440-450	1.19	3.66		6.50	4.98		.19	1.12		10.50	7.48	
C	English	-	-	-	n.a.	-	-	n.a.	-	-	n.a.	-	-	n.a.
	French	-	-	-		-	-		-	-		-	-	
	Mixed	110-120	.56	2.13		8.82	6.30		.18	.90		7.23	5.90	
	Total	110-120	.56	2.13		8.82	6.30		.18	.90		7.23	5.90	
D	English	80- 90	1.26	3.45	.61	11.00	6.80	.59	.27	1.05	.72	12.53	7.98	2.79**
	French	40- 50	1.66	3.95		6.68	6.38		.15	.72		8.49	8.14	
	Mixed	-	-	-		-	-		-	-		-	-	
	Total	130-140	1.40	3.62		9.50	6.95		.23	.95		11.13	8.23	
	English	522	1.28	3.97	2.16**	10.11	6.34	7.65***	.30	1.57	1.55	11.69	7.56	4.43***
	French	246	1.96	4.30		6.55	5.27		.51	2.06		9.02	7.86	
	Mixed	476	1.09	3.43		8.57	6.39		.58	2.91		10.24	7.99	
	Total	1,244	1.34	3.85		8.82	6.30		.45	2.26		10.61	7.93	

[a] Ratios testing the significance of the mean difference in the teaching experience of those teaching in English and French schools..

*significant at the .05 level

**significant at or beyond the .01 level

***significant at or beyond the .001 level are employed in the same units with somewhat less experienced Francophones. The point cannot be proven. If one examines the makeup of the experience, Francophones consistently have more elementary level experience than the Anglophones, and the Anglophones more secondary experience. This is an obvious outcome of a situation where French language secondary schools were created only in the relatively recent past, thereby making it impossible for Francophones, as a group, to have the corresponding level of secondary experience. The makeup of experience for the mixed schools is again inconclusive in this regard, due to the impossibility of assessing within-school differences between Anglophones and Francophones from the data. From inspection one notes that the differences in mean total experience levels between boards is much larger than the differences between the different types of schools within boards.

Table IV.4 is a further elaboration of the same data using two-way analysis of variance to determine significance of the variation introduced by school board and the interaction between board and type of school determined by language of instruction. As can be seen, the observed variance introduced by type of school (English vs French) was found to be highly significant for experience gained at the secondary level as well as other related experience. However, the variability among the three school boards under comparison was found to be significant only for the length of teaching experience gained at the secondary level. Teachers of both the English and French schools in School Board D had higher levels of secondary teaching experience than teachers employed by the other two school boards. Since the direction of the mean

TABLE IV.4

TWO-WAY ANALYSIS OF VARIANCE STATISTICS RELATED TO TEACHING EXPERIENCE OF SECONDARY SCHOOL TEACHERS, EXCLUDING THOSE IN MIXED SCHOOLS (1975-76)

Source of Variation	d.f.	Elementary Level Experience		Secondary Level Experience		Other Related Experience		Total Experience	
		Mean Square	F	Mean Square	F	Mean Square	F	Mean Square	F
Main Effects	3	53.92	3.26*	317.57	8.83***	25.28	8.52***	53.30	.88
Board	2	21.59	1.30	143.26	3.98*	20.80	7.01	38.82	.64
Type of School	1	55.40	3.45	287.84	8.00**	8.23	2.77***	44.28	.73
Two-Way Interaction (Board x Type of School)	2	4.66	.28	47.24	1.31	3.06	1.03	102.96	1.70
Explained	5	34.25	2.07	461.83	13.39**	15.64	5.28***	289.96	4.78***
Residual	762	16.55		35.98		2.97		60.69	
TOTAL	767	16.67		38.89		3.05		62.19	

* significant at the .05 level
** significant at or beyond the .01 level
*** significant at or beyond the .001 level

differences between the teaching experience of English and French school teachers remained consistent within a particular teaching experience category for each school board, no significant interaction existed between type of school and school board.

In summary, as measured by teaching experience, the level of service in mixed language schools appeared to be situated somewhere between that of English and French schools. The data did not permit any clear indication of differentiation of teaching experience between Francophones and Anglophones within the mixed schools. An untested hypothesis would be that this mid position is due to a mixture of staffing experience levels similar to that between English and French secondary schools.

2.1.2 Program offerings in French

An important measure of service is the degree to which students have the possibility of choosing courses in their own language. In order to obtain a measure of this, the data on September Reports was analysed to determine the number of course guidelines which are currently being used within any given school. Before any discussion of the data available, it is necessary to point out its exact nature. The Ministry of Education guidelines for teaching courses are issued for three divisions of secondary school: Intermediate (grades 9-10), Senior (grades 11-12) and Honours (grade 13). Normally for standard courses at the Intermediate and Senior levels, two courses are taught for each guideline, one for each year of the level; on the other hand, for "non-standard" guidelines, each guideline may correspond to a single subject and level, e.g. grade 11 physics, grade 12 chemistry, urban studies, Indian studies. In the September reports, principals indicate the number of students enrolled by guideline within division (Intermediate, Senior, Honours). From this report one can calculate the number of guidelines from which courses are being offered at any one time; since separate guidelines exist for French and English courses, it is possible to get a count of guidelines by language of instruction. The count of guidelines by language of instruction constitutes a rough measure of the range or variety of courses being offered in each language by level, but it is not a direct measure of the number of courses taught.

Table IV.5 shows the number of course guidelines in which students are enrolled in French and mixed secondary schools in the sample, grouped into major areas of study. A major disproportion is immediately evident. In mixed schools less than one quarter of the total number of guidelines were offered in French in all areas of study except Languages (37 per cent) and Social Studies (29 per cent). Seven of the nine mixed schools under study offered no Technical and/or Vocational courses in French. The other areas of study in which relatively few courses were offered in French were: Arts (10 per cent), Business and Commerce (14 per cent) and Mathematics and Sciences (16 per cent). There are major differences when comparing between boards (not shown on the table). In one board all mixed schools provided at least a few courses in French in all areas of study, whereas in another the majority of mixed schools offered no course in French in three areas of study - Mathematics and Science, Arts, and Technical and Vocational. The French schools have much higher numbers of French guidelines in use; however owing to differences in policy at the local level, some of them also have considerable numbers of English guidelines in use,

TABLE IV.5

NUMBER OF FRENCH AND ENGLISH COURSE GUIDELINES IN WHICH STUDENTS ARE ENROLLED BY SCHOOL AND AREA OF STUDY FOR FRENCH AND MIXED SECONDARY SCHOOLS (1975-76)[a]

Type of School	School Code	Area of Study												Total No. of Guidelines		Percentage of Enrolment	
		Language		Social Studies		Mathematics & Science		Arts		Business & Commerce		Technical & Vocational					
		Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.
FRENCH	AF	3	3	-	16	-	21	3	11	1	6	-	9	7	66	-	100
	BF	3	4	-	10	10	19	-	8	2	10	-	14	15	65	-	100
	CF	3	5	-	14	-	18	-	7	-	8	-	18	3	70	-	100
	DF	3	5[b]	2	11	17	8	-	9	9	3	9	-	40	36	-	100
Total	4 (N)	12	17	2	51	27	66	3	35	12	27	9	4	65	237		100
	(%)	41.4	58.6	3.8	96.2	29.0	71.0	7.9	92.1	30.8	69.2	18.0	82.0	21.5	78.5		
MIXED	AM	6	3	16	2	23	-	8	-	10	-	9	-	72	5	70.8	29.2
	BM	6	3	12	8	19	3	5	1	5	2	7	-	54	17	48.7	51.3
	CM	6	3	13	8	13	-	8	-	7	-	17	-	64	11	63.8	36.2
	DM	6	3	16	7	18	5	9	2	9	-	9	-	67	17	75.3	24.7
	EM	6	3	16	6	21	-	12	-	11	2	17	-	83	11	72.5	27.5
	FM	7	7[b]	11	6	18	12	6	2	12	5	17	8	71	40	50.4	49.6
	GM	6	3	11	4	16	-	3	-	4	-	13	-	53	17	67.3	32.3
	HM	6	3	12	6	15	-	7	-	5	-	10	-	55	9	65.6	34.4
	IM	6	5[b]	16	4	20	11	7	2	7	2	13	3	69	27	53.4	46.6
Total	9 (N)	55	33	123	51	163	31	65	7	70	11	112	11	588	144	63.4	36.6
	(%)	62.5	37.5	70.7	29.3	84.0	16.0	90.3	9.7	86.4	13.6	91.1	8.9	80.3	19.7		

[a] Source of data: Ontario Ministry of Education, 1975.
Course guidelines by division as reported on September Report.

[b] Including 2 courses in anglais and 3 in francais. (French is counted as an English course, as it benefits anglophone students.)

sometimes exceeding the number of French ones for certain subjects.

The figures have no absolute value in themselves, but when compared with the corresponding figures for guidelines available in English in the mixed schools, the disproportion is evident. Another way of viewing the same phenomenon is presented in Table IV.6. For each school, the ratio of English language to French language guidelines used is shown together with the corresponding ratio of Anglophone to Francophone enrolments. In a typical case, in a school having a ratio of 1.91 Anglophones enrolled for each Francophone, there are 9.0 times as many English language guidelines available at the Intermediate level from which to select courses, 7.0 times as many at senior level, 3.67 times more at honours level. The honours level course offerings always appear to approximate more closely relative population proportions, but this is due to two factors acting in the same sense: (i) total range of courses available in either language diminishes as a function of the restricted number of students; and (ii) the number of Francophones going on to Grade 13 is smaller than for Anglophones, thereby reducing their share of the enrolment and bringing the figures more into balance. Thus, the apparent narrowing of the gap is not due to any increase in the number or variety of French courses in Grade 13; it is an artifact of other factors. If one examines the ratios for the total number of course guidelines in each school, it is clear that the most favourable situations for the Francophones occur in the three schools (A, B and C) where they constitute either a slight majority or a slight minority (enrolment ratios of .95:1, 1.05:1 and 1.14:1).

From the data presented, it is obvious that Francophone

TABLE IV. 6

RATIO OF ENGLISH LANGUAGE TO FRENCH LANGUAGE COURSE GUIDELINES USED AT EACH LEVEL

	Level	Course Ratios E : F	Enrolment Ratios E : F
Mixed Secondary Schools			
AM	Int.	1.41 : 1	.92 : 1
	Sen.	1.83 : 1	1.00 : 1
	Hon.	2.80 : 1	2.19 : 1
	Total	1.78 : 1	1.05 : 1
BM	Int.	2.36 : 1	.98 : 1
	Sen.	2.08 : 1	1.17 : 1
	Hon.	11.00 : 1	4.5 : 1
	Total	2.56 : 1	1.14 : 1
CM	Int.	1.89 : 1	.79 : 1
	Sen.	5.40 : 1	1.12 : 1
	Hon.	3.33 : 1	1.42 : 1
	Total	3.18 : 1	.95 : 1
DM	Int.	3.43 : 1	2.55 : 1
	Sen.	5.17 : 1	3.54 : 1
	Hon.	3.00 : 1	4.67 : 1
	Total	3.94 : 1	3.05 : 1
EM	Int.	8.00 : 1	1.84 : 1
	Sen.	5.25 : 1	1.43 : 1
	Hon.	3.67 : 1	4.2 : 1
	Total	5.82 : 1	1.76 : 1
FM	Int.	9.00 : 1	1.78 : 1
	Sen.	7.00 : 1	1.89 : 1
	Hon.	3.67 : 1	2.93 : 1
	Total	6.56 : 1	1.91 : 1
GM	Int.	7.20 : 1	2.22 : 1
	Sen.	8.50 : 1	3.14 : 1
	Hon.	6.50 : 1	4.57 : 1
	Total	7.55 : 1	2.64 : 1

Continued ... Page 2

TABLE IV. 6 (p.2 cont'd.)

	Level	Course Ratios E : F	Enrolment Ratios E : F
Mixed Secondary Schools			
HM	Int.	9.33 : 1	2.10 : 1
	Sen.	5.00 : 1	1.93 : 1
	Hon.	10.00 : 1	3.17 : 1
	Total	7.57 : 1	2.09 : 1
IM	Int.	9.00 : 1	1.84 : 1
	Sen.	31.00 : 1	3.10 : 1
	Hon.	14.00 : 1	4.80 : 1
	Total	14.40 : 1	2.42 : 1

French Schools (Enrolment 100% Francophone)

		Course Offerings	
	Level	% English	% French
AF	Int.	3	97
	Sen.	3	97
	Hon.	8	92
	Total	4	96
BF	Int.	8	92
	Sen.	9	91
	Hon.	14	86
	Total	10	90
CF	Int.	11	89
	Sen.	20	80
	Hon.	35	67
	Total	19	81
DF	Int.	44	56
	Sen.	58	42
	Hon.	64	36
	Total	53	47

students in the mixed secondary schools rarely have the chance to choose from more than a minute number of courses in their own languages. (The interview data obtained in case studies from the secondary schools confirm that the number of courses bears some resemblance to the number of guidelines in use. For all schools, each guideline in use corresponds on average to between 1.5 and 1.9 actual courses taught.) At least two schools constitute an exception (schools A and B in Table IV.6); the interview data reveals that in each case the influence of an active Francophone parent group has led to increases in the number of courses available in French and an exact count of courses actually offered shows the numbers to be quite large compared to other schools. These rations were exceptional and occurred in situations where rather novel approaches were used to ensure course variety - offering courses in alternate years, introducing timetabling innovations and so forth. The interview data indicated that such cases were exceptional for the year concerned, but that some of the other schools have subsequently made significant improvements of a similar nature.

The case studies permitted us to examine some of the factors contributing to the proportion of English language courses in the mixed schools. In some cases it was felt that since students enjoyed the option of attending French language institutions (albeit at a distance) a major effort to provide French courses was not necessarily required. The proportion of Francophone students enrolled, as indicated earlier, appears to have some effect in cases where numbers are nearly equal. However, there seemed to be no direct correlation between total numbers of Francophone students and number of guidelines in use. For example, one mixed school offered courses in the same number of guidelines as another school in the same board having half the number of Francophones enrolled. In at least five cases, school interview data cited staff hiring problems as a limiting factor. In two schools the mainly unilingual Anglophone staff could only be shifted to bilingual Francophones through slow attrition; in two others the difficulties of teaching in a small school with many course preparations per day caused difficulties in retaining Francophone teachers; in another, the absence of qualified Francophones on the job market was indicated. Finally, in some cases reference was made to parental preferences for programs with a strong English component, just as the activities of FLAC committees were cited in others as an explanation of special efforts to increase the number of French language courses.

The number of summer school courses offered in French is not available from the data furnished in the September Reports. Information on this was gathered in the case studies and revealed that the number of courses offered in French was so small as to be almost insignificant, usually limited to one or two groups in français and, rarely, in mathematics. This situation is translated directly into the enrolment rates in summer school reported by the September reports (see Table IV.7): whereas 8.6 per cent of students in English language high schools attended summer school, only 3.3 per cent did so from French high schools; the percentage for mixed schools (3.6 per cent) was close to that of the French schools. In some cases English language courses in summer are taught by bilingual teachers capable of giving assistance in French to students. Nevertheless, one must conclude that most Francophone students having learning difficulties or wishing to earn additional credits are obliged to follow summer school in English, if at all. The situation affects students in

TABLE IV. 7

SUMMER SCHOOL ENROLMENT PROPORTIONS BY SCHOOL TYPE FOR ENGLISH, FRENCH AND MIXED SECONDARY SCHOOLS (1975-76)

English Schools[1]		French Schools		Mixed Schools	
School Code	Summer School as % of Total	School Code	Summer School as % of Total	School Code	Summer School as % of Total
AE	3.7 (min.)	AF	5.8	AM	.3
				BM	0.0
				CM	1.9
		BF	2.2		
				DM	7.5
BE	7.8 (median)			EM	3.8
		CF	2.6	FM	3.0
				GM	6.8
				HM	2.6
CE	13.3 (max.)	DF	3.6	IM	4.0

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[1] Schools chosen from sample.

Totals:	Summer School Enrolment Range	Enrolment Range	Summer School as % of Total
English	750-800	8500-9000	8.6
French	125-150	4000-4500	3.3
Mixed	250-300	7500-8000	3.6

French language as well as mixed schools, but it is presented here because of its close relationship to the problem of course selections during the regular school year.

2.1.3 Student Course Selection Patterns

The meaning of the course offerings indicators can only be understood in the light of its impact upon the Francophone students and their individual programs of study. Fortunately, the indicators available are far more accurate than those regarding course offerings. Table IV.8 shows for the French and mixed secondary schools in the sample the percentages of Francophone students taking different numbers of credits in French for each year of secondary school. In five of the nine mixed secondary schools, no Francophone student ever takes at any time a full program in French. With few exceptions the students enrolling in Grade 9 have taken all previous studies in French. Yet, in their first year in high school in these schools, the great majority are immediately placed in an environment where they are taking at least two-thirds of their studies in English - from 69.9 per cent to 96.3 per cent are enrolled in courses having only one or two credits in French, with the remainder in English (the average number of credits in the schools varies from 6.9 to 7.89 in the mixed secondary schools of the sample). In the remainder of the mixed schools a slow phenomenon of "crossover" occurs in the following years as the students take progressively more credits in English. This is evidenced by the rapid drop in the numbers of students taking five or more credits in French - from 53.9 per cent in Grade 9 to 1.4 per cent in Grade 10 in one school (FM), from 22.9 to 8.9 between Grades 9 and 11 in school GM; the slowest decline occurs in schools HM and IM, from slightly more than 74 per

TABLE IV.8

FRANCOPHONE STUDENTS TAKING CREDITS IN FRENCH AS A PERCENTAGE OF TOTAL FRANCOPHONE ENROLMENT BY SCHOOL, YEAR OF STUDY AND NUMBER OF CREDITS FOR MIXED SECONDARY SCHOOLS (1975-76)

School Code	Year of Study	Number of Credits 1-2 %	3-4 %	5 %	Francophone Enrolment
AM	1	75.0	25.0	-	100-125
	2	83.7	16.3	-	
	3	72.0	28.0	-	
	4	85.0	15.0	-	
	5	83.3	16.7	-	
BM	1	96.3	3.7	-	200-225
	2	95.9	4.1	-	
	3	97.8	2.2	-	
	4	94.9	5.1	-	
	5	50.0	50.0	-	
CM	1	86.7	13.3	-	275-300
	2	92.3	7.7	-	
	3	96.9	3.1	-	
	4	100.0	-	-	
	5	100.0	-	-	
DM	1	73.9	26.1	-	200-225
	2	64.2	35.8	-	
	3	75.0	25.0	-	
	4	72.5	27.5	-	
	5	70.0	30.0	-	
EM	1	69.9	30.1	-	425-450
	2	8[illegible].6	18.4	-	
	3	96.1	3.9	-	
	4	93.0	7.0	-	
	5	85.7	14.3	-	
FM	1	6.5	39.6	53.9	500-525
	2	60.9	37.7	1.4	
	3	78.7	20.4	.9	
	4	90.4	9.6	-	
	5	71.0	22.6	6.4	
GM	1	35.7	41.4	22.9	225-250
	2	36.8	32.9	30.3	
	3	37.8	53.3	8.9	
	4	57.1	40.0	2.9	
	5	76.2	19.0	4.8	
HM	1	19.0	6.6	74.4	650-675
	2	18.9	15.2	65.9	
	3	24.5	50.9	24.6	
	4	28.1	52.6	19.3	
	5	100.0	-	-	
IM	1	4.7	20.7	74.6	500-525
	2	12.1	24.2	63.7	
	3	15.7	43.3	41.0	
	4	40.4	29.3	30.3	
	5	37.0	26.0	37.0	

cent to 24.6 and 41.0 per cent in Grade 11. Only one of the mixed schools retains a significant number of students with a full load in French all the way through Grade 13. For comparison purposes, Table IV.9 shows equivalent figures for the French language high schools, showing how a similar shift occurs, though in slightly lesser portions, in those schools where policy is to provide English language courses.

An estimate of the total impact of the French-to-English "crossover" phenomenon can be obtained from certain figures prepared initially for estimating the proportion of costs of English language courses to assign to the French language sector (II.3.2.4.2). It will be recalled that the calculation was based on the average number of credits per student in mixed schools, as well as the actual number of credits taken by Francophones. Knowing the enrolment of Francophones and multiplying it by the average number of credits taken in the school, one can calculate the "expected" number of credits taken by Francophones. As shown in Table IV.10, this "expected" number of credits can be related to the actual number of French credits taken by Francophone students in the school as a whole. In the worst case, students took on average only 21.4 per cent of their programs in French; the best case was 61.4 per cent, with a median of 31.0 per cent. These figures neglect further one point, namely, that in some mixed schools certain courses remain only nominally French owing to the strong tendencies towards Anglicisation in the environment, a point to which we will return in the next section in discussing cultural needs.

TABLE IV. 9

FRANCOPHONE STUDENTS TAKING CREDITS IN FRENCH AS A PERCENTAGE OF TOTAL FRANCOPHONE ENROLMENT BY SCHOOL, YEAR OF STUDY AND NUMBER OF CREDITS FOR FRENCH SECONDARY SCHOOLS (1975-76)

School Code	Year of Study	Number of Credits 1-2 %	3-4 %	5 %	Francophone Enrolment
AF	1	1.3	21.7	77.0	775- 800
	2	2.0	41.3	56.6	
	3	14.0	62.5	23.5	
	4	55.9	33.1	11.0	
	5	78.4	19.6	2.0	
BF	1	-	3.5	96.5	950- 975
	2	-	1.4	98.6	
	3	-	3.6	96.4	
	4	2.4	28.2	69.4	
	5	13.2	59.2	27.6	
CF	1	-	-	100	1,075-1,100
	2	-	-	100	
	3	-	-	100	
	4	-	-	100	
	5	-	-	100	
DF	1	-	-	100	1,650-1,275
	2	-	-	100	
	3	-	-	100	
	4	-	-	100	
	5	-	-	100	

TABLE IV. 10

ESTIMATED PERCENTAGE OF COURSES TAKEN IN FRENCH BY FRANCOPHONES IN MIXED SECONDARY SCHOOLS

School Code	Expected Credits[1] for Francophones	Actual French Credits	Actual as % of Expected
AM	892.08	241	27.0
BM	4,339.52	2,602	60.0
CM	2,239.75	479	21.4
DM	3,189.90	990	31.0
EM	3,546.60	1,233	34.8
FM	1,483.38	377	25.4
GM	2,316.42	1,423	61.4
HM	1,948.83	813	41.7
IM	1,547.75	368	23.8

[1] Expected credits = Average number of credits per student x number of Francophone students

2.1.4 Dropout rates

Examination of the data on student enrolments raised a most interesting and far-reaching set of hypotheses related to measures of service which had generally been excluded by the definition of "service" used in most of the study. Instead of looking at available resources, one might try to measure "impact" on the persons receiving the service. Two obvious indicators were the dropout rates and the issue of whether the Francophone student has a good chance of finishing Grade 13, the basis from which universtiy studies may be begun. Intuitively the data suggested that the Francophone has far fewer chances than the Anglophones. This seemed to apply across all types of schools, but appeared to be particularly significant in mixed schools.

Table IV.11 is a tabulation of dropout rates for students in English, French and mixed secondary schools. As can be seen, the tabulations indicate that the dropout rate was highest for English schools (11 per cent), followed by French (9.9 per cent) and mixed (9.5 per cent) in close succession. However, the direction of the difference in rates of schools varied between boards as well as between schools within boards. A careful examination of the figures by school revealed large anomalies. For example, in one mixed school, the dropout rate for English-speaking students was supposedly in excess of 40 per cent for one year, more than five times as high as the rate for French-speaking students (7.6 per cent) in the same school. In two other mixed schools one finds dropout rates of 11.3 per cent and 20.6 per cent respectively among Anglophones, with no dropouts whatsoever among Francophones. The investigators have therefore reported the data for background but feel that the anomalies

TABLE IV. 11

ENROLMENT AND DROP-OUT RATES BY SCHOOL BOARD, SCHOOL AND TYPE OF SCHOOL FOR ENGLISH-SPEAKING AND FRENCH-SPEAKING STUDENTS (1975-76)

Mixed Schools			English Schools[a]		French Schools	
School Code	Drop-Out Rate English Speaking %	Drop-Out Rate French Speaking %	School Code	Drop-Out Rate %	School Code	Drop-Out Rate %
AM	11.1	18.3	AE	.7 (min.)	AF	5.8
BM	4.5	13.7				
CM	40.8	7.6			BF	14.2
DM	15.1	7.5				
EM	20.6	-	BE	9.0 (median)		
FM	4.7	6.3			CF	10.5
GM	10.3	9.0				
HM	11.7	12.6				
IM	11.3	-	CE	27.8 (max.)	DF	7.1
All Schools Combined	12.9	9.5		11.0		9.8

[a] Schools chosen from sample.

All Schools Combined	Enrolment Range English	Enrolment Range French	Drop-Out Rates English	Drop-Out Rates French
Mixed	5000-5500	2500-3000	12.9	9.5
English	8500-9000	-	11.0	-
French	-	4000-4500	-	9.8

render it impossible to draw any conclusions whatsoever.

2.1.5 The problem of retention rates

The purpose of this sub-section is to outline an attempt made by the investigators to deal with one of the most important measures of outcome that might be obtained, namely the degree to which different school types affect the chances students have of going on to college. The problem arose when a simple examination of enrolment data in the secondary schools suggested that a relatively small proportion of francophones were to be found in Grade 13; further analysis of the data suggested that this phenomenon might be stronger in the mixed secondary schools than in the unilingual French ones. On the other hand, the same data did not indicate that there was any major difference in attrition rates between anglophones and francophones up until the end of Grade 12.

The importance of the matter being discussed has to be considered in a historical context. The movement to create French language instructional units at the secondary level was strongly helped in the 1960's by the results of the Ph.D. thesis of R.A.M. Carlton, "Differential Education Achievement in a Bilingual Community" (Carlton 1967). Studying a community in northern Ontario, the author demonstrated that Francophones entering secondary school were frequently "steamed" into vocational subjects and dropped out of school rapidly, so that Anglophones tended to have a much greater chance of reaching Grade 13 and going on to university studies. The report of the Royal Commission on Bilingualism and Biculturalism echoed the same note, basing some of its conclusions on the results of the re-analysis by A.J.C. King and C. E. Angi of the Carnegie Study data, "Language and Secondary School Success" (King and Angi 1968). Studies such as these were at the base of the 1968 Report of the Committee on the French Language Schools in Ontario (Ministry of Education 1968) and of the decision of the Ontario Government to introduce legislation permitting the creating of French language instructional units at the secondary level.

The results of our preliminary analysis raised tantalizing hypotheses about how to explain the phenomenon --- if it truly existed. For example, the fact that francophones did not seem underrepresented in the Grade 12 population might have been traceable to the fact that, with the introduction of the credit system in secondary schools, promotion from grade to grade has been almost abolished. The data on numbers of students in Grade 12 shown on the principal's September Reports reflects, by and large, simply the number of students staying on for a fourth (or later) year of school. By contrast, students are only classed as being in Grade 13 if they are enrolled in honours-level courses, implying successful completion of requisite courses. Grade 12 enrolments do not reflect prior success so clearly.

Our efforts to deal with this question met with considerable frustration. Without significant new data gathering, it was impossible to obtain a true measure of "retention rate" in the secondary schools. To be accurate, one should examine the records of a cohort of students entering Grade 9 and trace exactly their secondary educational career, determining when each student left secondary school and so on. There was no way to get around this fundamental lack of data. Such measures as we were able to calculate pointed to a very large disparity in "retention rate" at the Grade 13 levels when Francophones in mixed secondary schools were compared to their Anglophone classmates enrolled in the same type of school; a much smaller apparent disparity existed between unilingual French and English high schools in the boards studied. However, the measure might be confounded by a number of factors, totally unrelated to school effects --- for example, differences in socio-economic status and so on. After much soul-searching, the investigators decided that this issue should be discussed in order to point to an area deserving of the most serious study. However, no firm conclusions could be drawn from the data available.

Given the tendencies of the data available, the investigators recommend most strongly that further studies, using other methodologies, be carried out on the problem of the effects of schools on student achievement and retention, particularly regarding the differences between unilingual French and mixed secondary schools.

2.2 IMPLICATIONS OF THE INDICATORS

2.2.1 Unmet needs or misinterpretation?

The question may legitimately be asked whether the indicators cited above truly show that there is a case of unmet educational need among Franco-Ontarians in the mixed secondary schools. As we have emphasized, the answers to such questions depend upon how need is defined. For most of this study, need has been considered in terms of the criterion defined in Section II, namely the "expected standard of service" in which all services are given entirely in the language of the users.

Under the criterion of expected standard of service, the indicators provide a very sombre picture. With regard to staff ratios, it is obvious that the Francophones only have access to a limited number of French-speaking staff, even if the total number of teachers in mixed secondary schools tends to be slightly higher than in unilingual ones. The French-speaking teachers also have lower levels of experience, but this is marginal compared to the basic issue of access to teachers in the student's own language. French-speaking staff numbers are reflected in the next indicator, the range of program offerings in French. Most schools appear to offer a range of courses in English that is several times greater than in French. Summer school possibilities in French are also minimal. In turn, the range of courses offered is reflected in student course selection patterns. The main effect of the mixed secondary schools, with minor exceptions, is to effect a gradual transfer of Franco-Ontarian students from studying in French to studying almost entirely in English. In some cases the phenomenon is delayed; in others it occurs very shortly after the students enter secondary school. It is important to recall that the average percentage of courses taken in French by Francophones in the median school was only 41.1 per cent, and that the figure went as low as 28.8 per cent in one school. These indicators demonstrate conclusively the English presence in the school environment, confirmed many times over by our observational and interview data. The examination of retention rates for Francophone students in terms of entry into Grade 13, the traditional stepping-stone to university, raised a very serious possibility: The Francophone students might have only a fraction of the chances of Anglophones in the same schools for entry to Grade 13; by the same indicators, the possibility exists that the gap between Anglophones and Francophones is narrowed by the "unilingual" French language schools. (It will be noted that some of these schools offer a range of courses in English.)

The negative general impression thus given must be toned down. The indicators being used are highly imprecise; the pseudo-measures of retention rates, however suggestive, are not true measures and definitely may be explained by factors other than the character of the schools. Phenomena of a socio-economic nature may be involved, as well as, in some cases, the fact that alternative unilingual French schools may attract the best students and leave the less gifted to attend the mixed schools. No amount of conjecture in this respect will replace a detailed study aimed at the central questions of school impact on students.

Despite these reservations, the indicators are so consistent that there appears little doubt that the Franco-Ontarian students are receiving a significantly lower level of service in mixed secondary schools than either the Anglophones in the same schools or Francophones in unilingual French schools. That, at least, is the way things look, provided one accepts the criterion of "expected standard of service".

All of the previous discussion is postulated on the idea that Francophones should have services equal to those of Anglophones. Suppose, however, one were to consider the case that they have a need for somewhat special treatment to overcome the handicaps of environmental factors such as the overwhelming English cultural presence. By such a criterion, one would expect the Francophones to receive compensatory services - a little more than equal treatment to ensure their survival as a separate group maintaining its own traditions. By this criterion, the case presented above is more than one of marginal inequality; it is an almost total denial of basic educational needs on a massive scale affecting almost all the schools in the sample.

This last criterion results in a radically severe condemnation of mixed secondary schools. Like other blanket statements on a complex situation, it is probably a distortion. The two criteria of expected standard of service and compensatory service needs are not universally accepted by the Francophone community and, in particular, by significant numbers of Francophone parents and students of the schools studied. In the earlier theoretical discussion, we have pointed out the difference between needs as defined for a group and those felt by individuals. The norm of expected standard of service is based upon the assumed needs of Franco-Ontarians as a group. A substantial proportion of the individuals concerned have a different oulook:

a. There are tradeoffs between transport distance and desire to have instruction in one's own language. Some parents and children would prefer to go to a nearby school with a majority of their studies in English, rather than ride on a bus to a distant school with better opportunities for study in French.

b. Some of the parents and young people believe that an education taken partly in English is the best route to "success" in Ontario society. Therefore, these people feel well served if their children have the right to choose courses in English. In fact, as pointed out earlier, in some areas courses in English are requested by parents in "unilingual" Francophone schools.

c. The concept of retention rates for continuing on to Grade 13 may be irrelevant to those persons who have no ambition for post-secondary study.

In this situation, a quite different conclusion is reached, namely that the Franco-Ontarians are well served by having in some regions a choice between three general options: education entirely in French, entirely in English or in a mixture of the two languages. The mixed secondary school appears as one of the options and, in some cases, has the advantage of also being nearer to home. Also in the mixed school, the Francophone is really a bilingual and therefore has a much wider range of options than unilingual Anglophones. If it is true that "success" is easier in the mixed school, then it would appear to maximize benefits for the persons concerned. (Note, however, the contrary indications provided by the analysis of retention rates). Instead of a machine for Anglicisation, the mixed school appears as a great benefit for Francophones having access to them. Definitely, criteria do make a difference.

A final framework of consideration is offered not by the definition of needs as felt by the Francophones but rather by the general public concern for having a society in which language groups cooperate and live harmoniously together. In theory, one might expect the mixed secondary school to be the sort of ideal environment in which young Anglophones and Francophones could learn each other's languages and culture, a basis for mutual understanding. Unfortunately, no one familiar with the reality of the schools involved can suggest for a moment that this is the case for more than a handful of the English-speaking students involved. "Bilingualism" is very much a one-way street in which the Francophones learn English but very little happens in the other direction. In this optic, the mixed secondary school would be a failure, a mirage of bilingualism hiding a unilingual reality.

The decision to consider mixed secondary schools as an area of unmet educational need was based primarily upon the criterion of expected level of service. However, this brief discussion has shown that the reader has a range of conclusions to draw from:

a. The mixed secondary school is a place where Francophones receive a significantly lower level of service than Anglophones: criterion of expected level of service.

b. The mixed secondary school is a mechanism for assimilating Francophones and denies them the compensatory services presumed necessary to survival: criterion of compensatory service needs.

c. The mixed secondary school provides the Francophone with a much broader set of options than are available to Anglophones; it allows flexibility and freedom of choice: criterion of personal tradeoffs (language fidelity against convenience and other social goals).

d. The mixed secondary school fails society as a whole by appearing to be bilingual but really fostering a climate where only one group learns much about the other's culture: criterion of seeking a harmonious, bilingual society.

The reader is free to choose. Whatever choice the reader makes, it must be remembered that these schools perform valuable educational services as measured by many other criteria, they enjoy considerable community support, and the educators in them strive to improve them every day in response to the needs of the pupils.

2.2.2 Margin for manoeuver

Since, by the criterion of expected level of service, mixed secondary schools have been considered to be a source of unmet educational needs, it is necessary to consider briefly the implications this might have for change and improvement. Because the discussion is based on the premise that there may be a need for change, two preliminary observations must be made:

a. Our interviews in the mixed secondary schools indicated that the people working in them generally demonstrate a high level of dedication to expanding the opportunities of Francophones. Most state that they are doing the best they can with the resources available, and many are offended in a deep, personal sense by any suggestion that the schools foster the Anglicisation of Francophones: they view their efforts as tending in the opposite direction.

b. The data analysed for this report dates from the year 1975-76;

> in several cases substantial improvements were made in the level of services to Francophones by the time our interviews occurred the following year. Thus the discussion of possible improvements sometimes refers to improvements already made by some of the schools themselves.

One may begin by asking whether there are viable alternatives to mixed secondary schools, given the geographic distribution of the population. In the sample, four of the nine mixed secondary schools were actually within travel distance of unilingual French language schools. Therefore, one may readily assume that the option exists to provide an alternative in those areas. The possibility arises, however, that since the persons enrolled in the schools have usually chosen them deliberately, an alternative is not needed. The remaining five high schools are all considered "district" high schools, in the sense that they serve a rather broad geographic area. In one or two cases, persons interviewed suggested mechanisms by which changes in school districts could result in a different pattern, particularly if the intention to have separate French schools had been taken into account in the original siting of school buildings. In some cases, however, there appears no viable alternative to such schools, unless a decision were taken to reduce drastically the mean size of high schools and presumably leave some buildings very much underoccupied while constructing new ones. On the other hand, in none of the mixed schools did we find evidence of an intermediate solution - a separate French wing - of the type recommended in the Symons commission report:

> The Commission recognizes, as did the provincial legislation of 1968, that the establishment of French language schools is not possible, or desirable, in all the areas of Ontario with a Francophone population because of the lack of the numbers of students required for such a school. In some areas, wings of schools, or classes are all that can appropriately be provided. The commission believes, however, that where a sufficient number of students can be assembled then a French lan-

> guage school must be provided, if it is the wish of the French-speaking community concerned. Similarly, failing a school, then the French-speaking students should be in a French language wing of the school, and failing a wing, then they should be in a French language class, provided that their numbers justify such arrangements and that it is the wish of the Franco-Ontarian community concerned.

The organisation of separate wings appeared feasible in some cases with the possibility of a certain amount of new construction. We did not examine, however, the details of such potential modifications.

From the above discussion, we might conclude that there is a possibility in some cases of providing instruction in French language schools; in other cases, the alternative of separate wings might be explored, though additional costs might be incurred. Since, for a variety of reasons, organising separate French schools may not be viable in any or all of the cases examined in our study, one must consider what means may be used to make improvement within mixed secondary schools as they now exist or as they might exist with organisation into separate wings.

Our research revealed that the schools were frequently making interesting and innovative efforts to improve services to Francophones. For example, efforts were made in most cases to define a "core curriculum" of a few academic subjects which were available in as many years as possible. This was linked with a practice in some schools of trying to provide continuity of study through the years in any subject begun in French: If a student began studying mathematics in French in Grade 9, then an effort would be made to continue mathematics into Grades 10, 11, and 12. One school offered courses in alternate years, so that a student might take Grade 10 histoire before the Grade 9 course. Where this was possible (only a few subjects can be so taught), the arrangement increased the range of options open to the Francophone over a longer period of time, even if in a given year the options were not all available. The examination of these efforts led to a basic, hard fact well known to the people working in the schools; if one is to provide equality of choice in French and English (or even near equality) within the same school, something has to be sacrificed. The present schools are often (but not always) doing the maximum possible within present constraints. The main constraints are as follows:

a) General staffing levels: As indicated earlier (III:5) in examining school board allocation policies, staffing levels are basically fixed in all cases on a board-wide basis and mixed schools are never given more than a relatively marginal adjustment in terms of percentage of extra staff per student enrolled.

b) Services to Anglophones: To respect local public opinion, there appears to be an almost unwritten law that the level of services to Anglophones can only be reduced marginally, if at all, in mixed schools. There have been cases where, in order to increase the number of courses available to Francophones, a small reduction in the number of English courses was made (say, four out of a total of eighty). In order to establish course range parity between the two languages, within the same constraints of total staff, massive reductions in English offerings would be required. Nothing in our contacts suggested that this was a remote possibility without incurring major political confrontations, with parents and others.

c) Space: Even if staffing levels are sufficient, providing parallel course streams in English and French tends to multiply the number of separate classes. Schools attempting to increase course offerings in French often run into an absolute lack of free classroom space. When special facilities (laboratories, shops and so forth) are involved, the problem is even more acute.

d) Low enrolments: This is another way of stating the problem referred to under staffing levels. It is difficult to begin offering new options unless the likely student demand is up to some minimum level - say, 16 students per class. On the other hand, unless courses are offered, there is no way to build up demand. In this typical "chicken and egg" situation, most schools find it difficult to take the step of teaching courses in French with very small enrolments. For this reason, formally "offered" courses may not materialize.

e) Teacher workload: In schools with small enrolments, teachers frequently have an extremely varied teaching load, sometimes a different subject to be taught in every lesson period. The more different courses to be prepared, the more work involved. In these cases, holding staff is difficult.

f) Existing staff capabilities: As indicated earlier, school principals cited the slowness of turnover among unilingual Anglophone teachers as a limiting factor in providing more French courses.

In examining the above constraints in real situations, our research team encountered few persons at any level who questioned the wisdom of current procedures for allocating resources to schools. The only major pressures in this direction have come from certain Francophone groups which believe that the "French language grant" funds available to boards should be channelled to schools with Francophone students. Plainly, if this were done it might modify noticeably the constraints on staffing in some schools. This would not erase some of the other problems, such as space. Some of the schools studied had prepared their own detailed analyses showing that space limitations were rapidly being encountered. As a general rule, where alternative unilingual French schools were not within travel distance, we found situations where real problems impeded seriously the development of more options for Francophones.

The general impression received from dealing with principals was that major improvements would require significant modifications in the constraints listed, modifications which appeared highly unlikely, given the present state of political balances and the finances of the school boards affected. A dilemma exists which, it appears, may not be solved under present circumstances at the local level.

2.2.3 Unanswered questions

At this point, one must recall the problems inherent in the current research study. The indicators used regarding level of service are precisely that, indicators rather than definitive proof. They may either underestimate or overestimate phenomena of inequality. Beyond this general qualification, there are very serious general problems that deserve detailed consideration through further research of a totally different type.

Startling divergences of opinion were expressed to our researchers by knowledgeable people about the implications of mixed secondary schools. This goes beyond the simple question of whether they "really" help Francophones to retain their culture or "really" help to Anglicize them. Basic, underlying assumptions are also at stake. For example, some persons maintain that, when a choice of school types is possible, Franco-Ontarian parents in upper socio-economic groups (the local "elite"), at least in some communities, would prefer their children to attend mixed secondary schools because, in this way, they develop better English skills and are better prepared to enter universities in Ontario. The exact opposite view is provided by those persons who maintain that, when a choice of schools is possible, the more academically gifted children are sent to the French language school and the less gifted to the mixed schools. It is difficult to reconcile the two attitudes. Similarly, the idea that mixed secondary schools make it easier to reach post-secondary education is in contradiction with the apparent trend of pseudo-measures of retention, suggesting that few students ever reach Grade 13, much less university. For that matter, the community attitude that getting jobs not requiring post-secondary study is facilitated by attendance at mixed secondary schools (where more English is supposedly learned) has never been tested, to our knowledge, in a systematic way. Similarly, there is no proof whatsoever that attending a mixed secondary school necessarily leads to developing better English language skills: sociolinguistic studies by Mougeon[5] and others indicate a range of societal factors that may be more important than the school milieu.

Even though the data provided in the indicators are not conclusive, some of them are very suggestive of researchable issues. Suppose for a moment that the retention rates data were an accurate reflection of reality. It will be recalled that the retention rates were uniformly high in the French high schools as compared to the mixed ones, even though the French schools sometimes had a high proportion of instruction in English rather than French in the upper grades. Thus, it is possible to ask the question whether language of instruction is the crucial variable in retention, or whether there is some other cause of differential retention rates - such as streaming based on social factors in the mixed schools and surrounding community. For that matter it is not certain that the factors leading to student retention as far as Grade 13 are the same factors affecting later success in post-secondary education - though, of course, getting to Grade 13 is the first and apparently most crucial step.

From the above, very brief discussion, one finds that there are numerous possibilities for researching the general effects of school type on student performance. A research project is required that takes into account multiple factors: interactions of socio-economic status with variables such as school selection, course choice and achievement; relationship between language of instruction in major subjects with later success in post-secondary studies (for those who continue); environmental, as opposed to school, factors affecting language competency; and so forth. The fact is that, at present, there is very little data on these topics and practically no research from which conclusions may be drawn regarding the effects of school type on students.

3. CULTURAL RESOURCES AND SERVICE NEEDS

3.1 CONTEXT

"Cultural resource needs" have been identified as an area of service need and "potential inequality". It is important to remember the point made earlier about the different logical schemes for considering inequality. In areas of culture, it is possible to define an area of inequality resulting from special needs of Franco-Ontarians. In other words, what is at issue are usually "compensatory service requirements". An examination of the general context will make clear why such compensatory services are needed in Franco-Ontarian schools.

A French language school in Ontario is normally an island set in an Anglophone cultural sea (and in the case of many a mixed school the sea floods the island, leaving only hillocks of Francophone culture). Most of the secondary schools in our costs-services sample are located in communities in which English is the mother tongue of the majority, and even in schools located in communities where French is the mother tongue of half to three-quarters of the population, the predominance of English in the province, country, and continent, especially as conveyed through the mass media, is a strong pressure toward assimilation. In communities where they are a minority or even numerically equal to Anglophones, Francophones apparently tend, for the most part, to keep a low profile and to use English as the language of communication outside the family; one principal of a mixed school in a community where Francophones were a sizable minority spoke of their desire to maintain a "community solidarity", evidenced in their lack of response to invitations to attend French language school performances, in contrast to their enthusiastic attendance at English language school events!

The effect on the Francophone student of this predominance of the English language and culture is, first of all, a tendency toward assimilation. The tendency among students toward assimilation is evident in the corridors of even the French language schools, where English is often heard, especially in the predominantly Anglophone communities. As the principal of one such school put it, there is a natural tendency on the part of the younger teenager to wish to conform to the norm, especially the norm conveyed through the mass media. (However, he observed a reidentification with the French language and culture among his Grade 12 and 13 students.) Moreover, the predominance of a language and culture which are not his obviously has a negative effect on the self-concept of the Francophone student; his need is, therefore, to develop an awareness and understanding of the richness and validity of his own language and culture and, ultimately, to become able to express his own personality and intellect fully in his own language and in terms of his own culture.

Another effect of the overwhelming predominance of the English language, especially in the mass media, is the isolated development of the French language in the various Francophone communities in Ontario, and thus its variance from the French spoken and written, not only in France, but also in Quebec and even Ottawa. So-called "standard" French is, we suspect, rarely heard or seen outside the schoolroom in many Franco-Ontarian communities. And of course, the fact that a French language secondary school education was not available to the parents of most students attending French language schools today means that those parents have not had the opportunity to extend their French vocabularies and thus, abilities to express ideas in French in various academic subjects. The effect on the student today is a difficulty in understanding many French language reading materials related to academic pursuits. Many of those interviewed spoke of the language of various texts and learning materials being too advanced for Franco-Ontarian students.

The role of the French language school is thus clear and has been expressed succinctly in the Symons Commission Report (p. 15): "...the French language school provides a setting within which Francophone students will have a better opportunity to come to know and to understand and to strengthen and develop their own culture and heritage. This is essential if they are to maintain their identity in a province where the language of the vast majority is English."

In order to provide such a setting, the French language school must, in addition to providing French language courses taught by Francophones, make available to the student a broad array of French language learning materials and of French language cultural enrichment materials and programs, plus a strong French language remediation program.

To make available such materials and programs to the adult Francophone community is also a desirable objective for French language schools, as observed in the Symons Commission Report, p. 51: "The school occupies a central role in the cultural life of the linguistic minority... The French language schools must truly be community schools and easily accessible to the general population of the linguistic group they exist to serve."

We will describe needs in all these areas, as found through our questionnaire to all French language and mixed secondary schools and through our interviews of principals and librarians (and sometimes guidance counsellors and other teachers) in the secondary schools in the costs-service sample, under the following headings:

Cultural Resources in Schools:

1. Instructional materials.
2. The school libraries.
3. Cost implications.

Special Programs:

1. Extra-curricular activities for cultural enrichment.
2. Visits by performers and artists, and cultural field trips.
3. Remedial language programs.

The School in the Community.

3.2 CULTURAL RESOURCES IN SCHOOLS

Are the French language instructional and cultural materials available in French language schools adequate for the fostering of a French language atmosphere and for the intellectual and cultural development of their students within the context of the French language? An analysis done by the principal of a French language school in our sample is revealing in this regard. He discussed with his staff the degree to which the French language content of each course ostensibly taught in French in his school was diminished by the following factors: English language textbooks, English language films and resource materials, English language reference books, English language special lectures, and English language multi-media materials. He and his staff agreed that of the 74 French language courses available, only 31 were taught entirely in French; the other 43 were diminished in French language content to a greater or lesser degree (French language content ranged from 95% down to 10% in his analysis). Assigning a French language content of 0 to each English language course, he then multiplied the percentage of French language content in each course by the number of students enrolled in it; then he summed the numbers of students per course to arrive at a total number of credits, which he divided into the sum of the products of percentage French language content × course enrolment to arrive at the French language atmosphere in the school, expressed as a percentage of what it would have been had all courses been taught entirely in French. For our purpose here, we eliminated from consideration the courses taught entirely in English (because the subject was English, or because of parental desires or because no Francophone teacher was available) and calculated the percentage French language atmosphere in the school as if the only courses taught there were those ostensibly taught in French; we arrived at a French language atmosphere of 77% of what it would be if all such courses had 100% French language content. In other words, in that school, even if all courses had ostensibly been taught in French, the use of English language textbooks, other printed and audio-visual materials, and the occasional special lecture in English would have reduced the classroom exposure of each student in the school to the French language by, on average, almost 25%. Our conclusion is that there is certainly room for improvement in the diversity and quality of French language instructional and cultural materials available. But what are the findings from our own survey and interviews?

3.2.1. Instructional Materials.

1. Survey data: textbooks, library books, and audio-visual materials.

In the questionnaire sent to all principals of French language and mixed secondary schools, we asked each one (or his Francophone delegate in the case of an Anglophone principal) to evaluate the situation in his school or school board with respect to a series of items describing various services and aspects of services, by circling, beside each item, a number corresponding to the appropriate point on the following scale:

N	0	1	2	3	4	5
Not Applicable	Entirely Lacking	Very Inadequate		Adequate		Excellent

The following remarks are based upon the mean ratings indicated in Table IV.12 and upon the number of responses to each rating scale point-number (not shown in the Table).

The questionnaire survey results indicate that all secondary schools, both French language and mixed, agree that the diversity of approved textbooks in French is inadequate, as is the instructional value of the ones which do exist. The lack of diversity and quality is felt all the more acutely by the French language schools because of the much greater range of courses offered in French. The mean ratings of the schools in the costs-services sample are somewhat at variance with the overall mean ratings, but the message is still clear.

There is less dissatisfaction with regard to the collections of French language books in the school libraries, in terms of counteracting the predominance of the English language culture. The majority of respondents in both groups felt that the quality of those books was adequate or better (though this view was somewhat offset by the strong dissatisfaction of a few mixed schools). Similarly, the majority of respondents from the French language schools were satisfied with the diversity of books; however, the majority of respondents from the mixed

TABLE IV.12 (PAGE 1 of 2)

SECONDARY SCHOOL PRINCIPALS' RATINGS OF INSTRUCTIONAL MATERIALS[1]

Materials[2]	Mean Ratings	
	French Schools N = 22	Mixed Schools N = 26
French textbooks approved on Circular 14:		
Diversity and number	1.0	2.0
Educational value and suitability to needs of Franco-Ontarian students	1.5	2.1
In terms of scholastic needs of students:		
Variety of French books in library	2.6	2.5
Educational value of the books	3.2	2.7
In terms of cultural needs:		
Choice of French books in library	2.7	2.3
Quality of French books in library	3.4	2.8
Diversity of other materials available to teachers	1.8	2.1
Quality of those materials in French	2.8	2.9

[1] Rating scale:

N — Not Applicable

0 — Entirely Lacking

1 2 3 4 5

[2] For text of items see page 2 of table.

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SECONDARY SCHOOL PRINCIPALS' RATINGS OF INSTRUCTIONAL MATERIALS

Translation of items as they appeared to respondents[3]

5.1a Their diversity (i.e. the number of different subject areas covered and the number of textbooks available per subject)

5.1b Their educational value and the degree to which they are adapted to the needs of Franco-Ontarian Students

In terms of the scholastic needs of the students:

5.2a The variety of books in French (other than text books) available in the library

5.2b The educational value of these books

In terms of the need to counteract the predominance of the English-language culture in your region:

5.2c The choice of books in French (other than text books) available in the library

5.2d The quality of these books

5.3a The diversity of curricular materials other than books (films, audio-visual kits, services offered by the Ontario Education Communications Authority, etc.) which are available to the teachers who teach in French

5.3b The quality of these materials

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[3] Deleted here, but listed beside each item in the questionnaire, were the rating scale numbers.

schools felt that the diversity of library books was inadequate; moreover, this negative view was held strongly by a minority of the French language school respondents, as the mean ratings indicate. Respondents from schools in the costs-services sample were in accord with these overall views, except that the diversity of French language books in the library was viewed less favourably by respondents in the French language schools than by their colleagues in the totality of French language schools surveyed. (We feel that the wording of the items possibly led to some defensiveness; items on the quality and diversity of French language books (other than textbooks) available on the market might have elicited less favourable ratings.)

The diversity of materials, such as films, multi-media kits, services furnished by OECA, etc., to which teachers of French language courses have access, was felt to be definitely inadequate, particularly by respondents from the French language schools (again, probably owing to their broader range of course offerings). The quality of the materials available was felt to be just adequate. The mean ratings of the schools in the costs-services sample differed somewhat from the overall means; in particular, the respondents in the French language schools in the sample felt that the diversity of materials was very inadequate, while respondents in the mixed schools in the sample felt that the quality of materials was clearly more than adequate.

2. Interview Data: General Problems Re Instructional Materials. In our interviews with principals and librarians we asked the former for which subjects and levels textbooks were lacking and we asked the latter for which subjects resource materials were lacking. As the principals enlarged the question to include resouce materials, the information from

both principals and librarians is summarized here and in the following sub-section. (It should be noted that four librarians did not give information on subject areas in which resource materials were lacking.)

Both in general remarks and with reference to various subject areas, the following problems emerged in interview after interview:

(a) the unavailability or very limited choice of French language books on various subjects (or, alternatively in some cases, the difficulty of finding books believed to exist, but for which no information was obtainable);

(b) their irrelevance to the Ontario curriculum (and/or to Franco-Ontarians)--for example, history books written from a Quebec viewpoint, books on various subjects written in France with little or no reference to Canada;

(c) the overly advanced level of language in French language books (compounded in many cases by the overly advanced level of content).

The effects of the problems cited above were described again and again as:

(a) a heavy burden of translation placed on teachers--as one principal expressed it, the nightmare of his teachers is the lack of a translation service at the school;

(b) alternatively, in some cases, a heavy burden of search for and compilation of appropriate excerpts from various sources;

(c) alternatively, in other cases, the use of English language materials in French language courses--diminishing French language atmosphere and creating difficulties for average and below average students;

(d) the use of English language materials by students in their assignments and independent reading.

3. Interview Data: Problems with Respect to Various Subject Areas.

(a) History: In seven of the nine mixed schools and two of the four French language schools, history was cited as an area in which suitable materials are lacking. Three of the principals felt that there was a very limited choice of textbooks available generally, and two of them felt that this was true of resource materials as well. A fourth principal felt that while the textbooks available were satisfactory, resource materials were very limited, leading to the use of English language sources. (This feeling was echoed by two or three librarians as well.) A fifth principal singled out Grade 9 as a level of pressing need and cited a lack of up-to-date multicultural readings at that level--for example, on the Canadian Indian. (This example was also used by one of the first three principals.) In a sixth school the history teacher maintained that enough materials existed, but that they were difficult to find and much photocopying in libraries was entailed. He also said that students tend to use English language materials anyway. Four principals mentioned that the history materials used in their schools are generally written from a Quebec viewpoint, with too much emphasis on Quebec and not enough on the rest of Canada, and are thus not well suited either to the Ontario curriculum or to Franco-Ontarians; as one principal put it, the materials don't recognize the French fact in Ontario. One school librarian noted that most of the history books in his library were written at a university level. Finally, two principals noted a lack of audio-visual materials for history; one of them was thinking particularly of materials on the Canadian Indian. (It is interesting to note that while the principal who had analysed the diminishment of French language content in courses in his school confined himself, in our interview, to the observation that there is a limited choice of approved history textbooks available, in his analysis one of the seven history courses had a French language content of only 30% owing to the use of English language films and reading materials.)

(b) Geography: In the same seven mixed schools and in two of the French language schools (one the same, one different), geography also was cited as an area in which suitable materials are lacking. Three principals felt that there is a very limited choice of textbooks and resource materials generally; a fourth felt that there is an adequate choice of textbooks available, but that very few resource materials are available, so that there is constant reference to English language sources. This lack was cited by librarians as well. A fifth principal complained that geography texts are available mainly from France and are thus difficult to obtain and not very relevant. However, another principal felt that while this had been the case in the past and was still true with respect to Grade 9, new, more suitable textbooks were available for Grade 10, and the upper grades did not present problems (except for an experimental Grade 13 course on world problems for which, understandably, no textbook was available). A seventh principal felt that only the Grade 12 Urban Studies course presented problems--the textbook is in English and few French language materials are available for it. One librarian specified a lack of French language materials on Canadian geography, while another specified the geography of South America.

(c) Law: The principal of one of the only two mixed schools in which law is being taught (for the first time this year) said that he would never again ask one of his teachers to initiate such a course--in that the lack of available French language materials had imposed an incredible burden of translation on the teacher. (At a French language school in the same area, in the North, law is ostensibly taught in French, but is apparently taught almost entirely in English for lack of French language materials.) In the other mixed school (which is much closer to Ottawa and Quebec), the teacher said that he did no translation work, but did spend considerable time collecting materials from various sources--e.g. sending for brochures from the Quebec Ministry of Justice and the Ottawa Board of Education and visiting Montreal libraries and the excellent local library to find and photocopy materials. The principal of a third mixed school said that a course in Canadian law had been offered this year, but was not taught, partly for lack of enrolment, but partly because of lack of French textbooks and materials. (He noted that a subsidy is offered by the Secretary of State for the translation of provincial statutes and said that Ontario is the only province which has not taken advantage of this subsidy.) The principal of one French language school also cited Law as an area where materials were lacking, as did the librarian of a fourth mixed school; the librarian of a second French language school concurred, adding that French language materials on criminology are also lacking.

(d) Sociology: This is perhaps a minor area at the secondary school level, but it is nevertheless interesting that four librarians mentioned it as one where French language materials are lacking; two of them specified a need for Canadian sociological materials, while a third observed that many of the resource books available are written at the university level. Another principal mentioned the dearth of materials for such courses as Man and Society and People and Politics, and two mentioned World Religions.

(e) Mathematics: In four of the six mixed schools offering French language courses in Mathematics and in all of the French language schools, mathematics was cited by the principal as an area where textbooks are lacking or the choice is limited--at all levels. One of them said that his teachers do a lot of translation from English language textbooks and stressed the burden this placed not only on the teacher, but also on the school secretaries. A second principal also stated that his teachers translate from English language textbooks; alternatively, they teach in French while their students use English language textbooks. A third principal cited that latter practice and pointed out that this posed difficulties for Grade 9 students after an entirely French language elementary schooling. A fourth principal was optimistic about the future availability of French language Mathematics textbooks; he understood that his board was going to commission translations. A fifth principal (under the same board) said that Grade 9 mathematics had been a problem, but that the school had just had published its own "textbook" (of which other schools under the same board seemed unaware!). (One librarian mentioned that it was difficult to find materials in mathematics for gifted students.)

(f) Science: In all of the six mixed schools offering French language courses in Science and in all of the French language schools, the principals cited science as an area where textbooks are lacking. Some also mentioned a lack of resource materials, as did three librarians. As one principal described the situation, there is no choice of French language textbooks and the few existing are only more or less suited to the Ontario curriculum, whereas there are English language ones perfectly suited to it. As a result, in some schools teachers translate materials, while in others they either translate or use an English language textbook, which inevitably leads to the use of English in the classroom, especially as the majority of available reference books are in English. A science teacher at another school pointed out that there are no French language textbooks suited to weaker students. He urged that John Eix's 1968 synthesis, created to accompany the new science curriculum, be translated.

The librarian at that school said that the science treachers frequently translate from McGraw-Hill textbooks.

(g) Arts: The lack of textbooks for the health component of Physical Education courses and for Home Economics appeared to be the most widespread complaint in this general area; each was mentioned by one French language school principal and two principals of mixed schools. (Another principal cited Physical Education generally, and another stated a need for a lexicon of gymnastic terms. Home Economics was counted as a Social Studies course in course counts.)

(h) Commerce: In two of the four mixed schools offering courses in this area and in all of the French language schools, commerce was cited as an area where textbooks are lacking. One principal gave Marketing as an example.

(i) Technology: The lack of textbooks for this general area was cited by three of the four French language school principals and by all the principals of the three mixed schools offering courses in the area. One principal gave as examples Auto Mechanics and Carpentry; for the former there were not suitable materials in French until the recent acquisition of pamphlets published in Quebec. Another principal pointed out that the lack of French language textbooks creates particular difficulties in this area, where teachers don't normally have the university education necessary, in his view, for good translation work; even if there is collaboration between the departments of French and Technology, the translation of materials requires more research than is possible within the time available to teachers.

3.2.2 The School Libraries

Another way to look at the cultural resources available to students in their school is to look at the school library as a whole - its collections of books and other materials, its personnel and facilities.

1. Printed materials collection: We have seen in the survey data that there is generally little dissatisfaction with the school library collections of French language books. However, we did not ask questionnaire respondents to rate the English language collections in their school libraries. We suspect that had we done so the comparisons might have been startlingly favourable to the English language collections, for the figures we were given with regard to the numbers of French and English language books in each collection by the school librarians indicate a considerably greater availability of English language books in terms of a number of measures. See Table IV.13 for data cited below.

a. French language schools: Let us begin by analysing the numbers of French and English language books available in French language schools. The analysis in these schools is not complicated by the presence of two different linguistic populations. The library's clientele is strictly francophone and it is clearly desirable to provide for it a very complete range of French language books, corresponding to the range of French language courses taught, with variations naturally depending upon the amount of outside reading desirable for each course. Obviously English language books must also be provided - particularly in the area of English literature and general fiction, as well as in any areas in which English language courses are taught; the aim of French language schools is clearly not only to nurture the development of their students as francophones but also to give them the English language skills they need to communicate and work in an English language world.

At first glance, the French language schools in our costs-services sample seem to have well-balanced collections. Their collections of books in French range in number from approximately 5,390 to approximately 13,800, the average being 10,150, while their collections in English range from approximately 4,500 to approximately 9,200 books, the average being 6,126. However, when one begins to look at the relationships of the French and English books in these collections to the numbers of French and English language courses and credits in these schools, the picture changes. If one compares the average number of French language books per French language course with the average number of English language books per English language course, the difference is usually ludicrous - for example, in the school with the largest collections of both French and English books, the average number of books in French per French language course is 200, while the average number of books in English per English language course 575! And this is not the greatest disparity - in two other French language schools, both offering fewer English language courses, the differences are even greater. However, the point is, the library of the school with the largest collection of French language books - and thus presumably the most wide-ranging, comprehensive collection of French language books - has nevertheless found it necessary to supplement that collection with an impressively large collection of English language books, out of all proportion to the number of English language courses taught in the school. This would seem to bear out the various comments of principals and librarians, reported above, concerning the scarcity of suitable French language books and other instructional materials in various subject areas, and the consequent use of English language materials.

It can reasonably be argued that one should not judge a library collection on the simple basis of comparison with the total number of

TABLE IV.13 (PAGE 1 of 2)

SCHOOL LIBRARY COLLECTION OF BOOKS IN FRENCH AND ENGLISH IN FRENCH AND MIXED SECONDARY SCHOOLS

School Type	School Code	Ratio of Student Population		No. of Books		Ratio of Books		No. of Academic Courses[1]		Ratio of Academic Courses	
		E	F	E	F	E	F	E	F	E	F
French	AF	-		4,500	5,390	0.8:1		11	12	0.9:1	
	BF	-		3,900	9,100	0.4:1		3	21	0.1:1	
	CF	-		6,904	13,173	0.5:1		3	23	0.1:1	
	DF	-		9,200	13,800	0.7:1		9	21	0.4:1	
Average				6,126	10,366	0.6:1		6.3	19.3	.3:1	
Mixed	AM	2.4:1		8,750	1,250	7.0:1		24	5	4.8:1	
	BM	1.9:1		4,900	2,100	2.3:1		20	9	2.2:1	
	CM	1.1:1		6,000	3,000	2.0:1		22	9	2.4:1	
	DM	1.1:1		13,370	4,200	3.2:1		18	15	1.2:1	
	EM	3.0:1		6,000	4,000	1.5:1		23	10	2.3:1	
	FM	2.6:1		12,400	6,200	2.0:1		23	9	2.6:1	
	GM	2.1:1		1,340	335	4.0:1		19	7	2.7:1	
	HM	1.8:1		12,000	3,200	2.6:1		19	11	1.7:1	
	IM	0.9:1		8,091	2,500	3.2:1		21	11	1.9:1	
Average		1.7:1		8,095	2,976	2.7:1		21	9.6	2.2:1	

[1] Academic courses = selected course guidelines by level indicated in the September principal's report

TABLE IV.13 (PAGE 2)

SCHOOL LIBRARY COLLECTION OF BOOKS IN FRENCH AND ENGLISH IN FRENCH AND MIXED SCHOOLS

School Type	School Code	No. of Books Per Academic Course		Ratio of Books per Academic Course	No. of Academic Credits[2]		Ratio of Academic Credits	No. of Books Per Academic Credit		Ratio of Books Per Academic Credit
		E	F	E F	E	F	E F	E	F	E F
French	AF	409	449	0.9:1	1,269	1,388	0.9:1	3.55	3.88	0.9:1
	BF	1,022	657	1.6:1	1,197	2,863	0.4:1	7.69	4.82	1.6:1
	CF	1,300	433	3.0:1	1,310	3,524	0.4:1	2.98	2.58	1.1:1
	DF	2,301	573	4.0:1	975	2,720	0.4:1	7.08	4.84	1.5:1
Average		1,258	528	2.4:1	1,188	2,624	0.5:1	5.33	4.03	1.3:1
Mixed	AM	365	250	1.5:1	3,026	479	6.3:1	2.89	2.61	1.1:1
	BM	1,022	657	1.6:1	1,569	377	4.2:1	3.12	5.57	0.8.1
	CM	273	333	0.8:1	1,193	692	1.7:1	5.03	4.34	1.2:1
	DM	743	280	2.7:1	2,655	1,441	1.8:1	5.04	2.92	1.7:1
	EM	261	400	0.7:1	2,725	534	5.1:1	2.20	7.49	0.3:1
	FM	539	689	0.8:1	3,911	880	4.4:1	3.17	7.05	0.5:1
	GM	71	48	1.5:1	881	231	3.8:1	1.52	1.45	1.1:1
	HM	631	291	2.2:1	1,599	365	4.4:1	7.51	8.76	0.9:1
	IM	385	227	1.7:1	2,585	954	2.7:1	3.13	2.62	1.2:1
Average		477	353	1.4:1	2,238	661	3.4:1	3.73	4.75	0.8:1

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[2] Academic credits = numbers of students enrolled in selected course guidelines.

courses available. Therefore we also compared numbers of books with numbers of "academic" courses offered - i.e., courses we had selected as probably entailing the bulk of a student's reading of books other than textbooks. The courses selected were: French and English literature (Ministry curriculum guidelines numbered: 20--, 21--); Sciences (guidelines: 5---); and Social Studies (guidelines: 6---, excepting 63-- home economics courses, but including Man-in Society 63-070). One could argue with this selection, but it does serve as one alternative method of viewing the data. On this basis, disparities are somewhat lessened, but are still very wide; again, in the French language school with the largest collection of books, the average number of books in French available per French language "academic" course is 657, while the average number of books in English available per English language "academic" couse is 1022 (calculations refer actually to number of course guidelines by level indicated in the September principal's report); in other words, in that school, there are 1.56 times as many English language books available per English language course as there are French language books available per French language course. (See Table IV.13 for further details.)

The number of books available per course should logically be modified to some extent by the number of students in each course, although this yardstick cannot be used inflexibly: while it seems logical that for a course taken by 100 students there should be a considerably greater number of books available in the library than for a course entailing a similar amount of reading but which is taken by only 20 students, clearly it would be unjust (as well as unnecessary) to provide five times as many books for the former course and thus impoverish the resource reading available for the latter course. There has to be some tradeoff between number of books available per course to the student body as a whole and number of books available per student credit taken (number of students enrolled in a credit course): the more students enrolled in a course, the fewer the library books needed per student in that course. For this reason we have also compared number of books available with numbers of student "academic" credits taken, as follows: In the school with the largest collection, the average number of French language books per French language "academic" credit is 4.82, while the average number of English language books per English language "academic" credit is 7.69, so that that library contains 1.60 times as many books in English as in French per "academic" credit. The average for all the French language schools in our sample is 1.33 times as many books in English as in French per "academic" credit. (See Table IV.13) The results are somewhat different from those calculated using number of courses, which ignored enrolments. A fair comparison probably lies somewhere in between.

b. Mixed schools: The situation in the mixed secondary schools is more complex, in that (a) there are two clienteles, one anglophone and one francophone, and (b) while the library resources for the anglophones must be virtually entirely in English (reading in French for most of them being confined to the textbook study of French as a second language), resources for the francophones must be in both languages. They need French language resource readings in order to develop as francophones - and in considerably greater numbers than the numbers of English language materials needed by anglophone students, in order to compensate for the English language environment. Yet in most mixed schools the large majority of the courses are available only in English, so that the natural tendency of the student is to read and study for them in English, making the purchase of French language reading materials in certain subject areas somewhat pointless.

Two alternatives present themselves:

(i) If one assumes that Francophone students should have books in strict proportion to the number of credits or numbers of courses they take, one set of conclusions emerges.

(ii) If one considers that, in order to overcome the environmental influence of English, they should have books available in French to accompany courses taught in English, a totally different set of conclusions can be derived.

In the following calculations, we have taken as an initial base the first idea, comparing textbooks rather strictly in proportion to numbers of students enrolled in credit courses or numbers of courses. As with the French language schools it is difficult to decide which of the two measures is "fairer", credits or courses.

Let us begin with an overview of the mixed high schools. For all the mixed schools in our sample, the average collection contains 2,976 books in French and 8,095 in English. On average, the number of "academic" courses in English is 2.19 times that in French. From these figures we calculate that the number of books per "academic" course is 1.35 times higher for English than for French. Using the number of credits taken by students in the two languages, the ratio is 3.39:1 in favour of English. The corresponding ratio of books is a reversal, so that there are .80 times as many English books as French ones per student credit. We find considerable within-school variations resulting from various allocation and procurement policies. No overall trend is observable, but two schools may be compared to show the complexity of the actual data:

Case 1: The school with the largest total collection in our mixed schools sample (approximately 6,200 books in French and 12,400 in English) seems to be carrying out a compensatory policy towards its francophone students (who form 27.5% of its total population). While the number of English language "academic" courses available is 2.56 times the number of French language ones, the number of English language books available per English language "academic" course is only three quarters (.78) of the number of French language books. Similarly, although the number of English language "academic" credits being taken there is 4.4 times the number of French language ones, the number of books available per English language "academic" credit is less than half (.45) the number of books available per French language "academic" credit.

Case 2: In the school which has the second largest collection (approximately 4,200 FL and 13,370 EL books), francophones form 49.6% of the population. There the number of English language "academic" courses available is only 1.20 times the number of French language ones, but the number of books available per English language "academic" course is 2.65 times the number available per French language course. The number of English language "academic" credits being taken there is 1.84 times the number of French language ones and the number of English language books per English language "academic" credit is 1.73 times the number of French language ones.

The disparities between the two schools might be accounted for by "real world" factors, on the one hand, such as the compensatory monetary policy followed by the board of the former school, plus its proximity to Quebec and apparently better access to French language materials and information on them; on the other hand, the disparities might be influenced quite strongly by inaccuracies in the information given by the two librarians and by inequities in the calculation formulae we have been using.

For details, the interested reader is referred to Table IV.13 for a comparison of the French language and English language library collections of all the schools.

We have not attempted to derive a calculation formula based upon the assumption that francophone students should have books available in French to accompany courses taught in English, but it is obvious that if this were done the results of its application would show the library collections of some of the mixed schools to be considerably less favourable to their francophone students than is indicated above.

In any case, we wish to reiterate our major point: that even in French language schools dedicated to the development of francophones and having available sufficient funds to purchase sizable library collections, there is an imbalance in favour of English language resources, indicating that insufficient *suitable* French language materials are available *on the market*, *at reasonable cost*.

It seems important to pursue another question here. When one compares the library collections of the various schools in the sample - French language and mixed - one becomes very conscious of the problem of the relationship of resources to size, compounded by school type. To paraphrase, "the large get larger and the small get smaller". In the boards in which comparisons are possible, it appears:

(a) That the total number of books in the library depends too closely upon the number of students enrolled: generally, though with some notable exceptions, if the school is small, the library is small, because it has approximately the same number of books *per student* - or fewer - as does a much larger school under the same board. Whereas ideally, as school size decreases the number of books per student should increase in compensation - so that all schools may have reasonably well-stocked libraries.

(b) That the impoverishment of smaller schools' libraries through over-application of per-pupil formulae is compounded by the way in which subsidies are granted for French language books, such that a large French language school where the students are enrolled for the most part in French language courses receives enormous subsidies which allow the building of excellent library collections, while in smaller mixed schools under the same boards, because the francophone students, far fewer in number, are each enrolled in far fewer French language courses, very small subsidies obtain, further impoverishing the library collections in those schools, whereas those students have all the more need of French language resource materials to compensate for the English language environment.

Case 1: In a board with mixed secondary schools only, the rule holds invariably: the larger the school, the larger the number of books per student. (And the difference cannot be balanced by differences in size of AV collections.)

Case 2: In a board with both school types, while the smallest school (also mixed) happens to have a collection larger than most of the others, giving it a per pupil collection of 26.9 books, it is an anomaly; the largest school under the same board (also mixed) has a per pupil collection of 12.9 books, whereas the other mixed schools have, on average, 10 books per pupil. The one French language school under the board, which is the same size as the schools averaging 10 books per pupil, has a collection of 20 books per pupil. (Again, the differences cannot be balanced by differences in the size of the AV collections.)

Case 3: In another board with both school types, the smallest school, also mixed, has a collection of 4.6 books per pupil; the next school, mixed and approximately 1.6 times larger, has a collection of 11.7 books per pupil. The next school, French language and almost twice the size of the second school, has a per pupil collection of 21.8 books, as well as a very fine AV collection (the AV collections in the mixed schools are negligible). Finally, the largest school, French language and almost 1.2 times the size of the third school, has a per pupil collection of only 10.4 books and is thus an anomaly, although its AV collection is the most magnificent we encountered and may account for much of the disparity.

If one created a calculation formula based on the fair assumption that francophone students need more books than do anglophone students, partly because they must study both French and English literature which entail a great deal of reading and partly because they must become familiar with both French and English terminologies and styles of communication in many areas, the disparities noted in cases 2 and 3 would be somewhat lessened, but would not disappear.

As well as providing figures on the total numbers of books in English and French in their collections, the school librarians were also able in most cases to indicate, numerically or as percentages, the division by language of both general reference works and newspapers and periodicals in their collections. In two of the French language schools the division of reference works was 50-50, while in a third it was 60% French language to 40% English language. In the mixed schools the divisions ranged from 50-50 (in both the smallest collection--3 sets in each language--and in the largest--12 sets per language) to 71% (10 sets) in

English vs. 29% (4 sets) in French; the median collection reported contained 60% (12) in English vs. 40% (8) in French. A common complaint among librarians was that reference works in French were usually not as attractive to high school students in their organization, format, illustrative materials, etc., as those in English. More especially, almost all encyclopedias available in French seemed geared to the university student in language level and often in content as well.

The collections of French language newspapers and periodicals ranged between 44 and 60 in the three French language schools reporting figures, while their English language collections varied widely--from 10 to 115; we suspect from this that there are only 50-odd French language newspapers and magazines to which it is worthwhile for a French language high school to subscribe, and that, depending on the library budget, the French language collection is rounded out to a greater or lesser extent with English language magazines. Among the eight mixed schools reporting, the divisions ranged from 87% (34) English language vs. 13% (5) French language periodicals and newspapers (in the 3rd smallest collection) to 63% (10) English language vs. 37% (6) French language ones (in the 2nd smallest collection). The smallest collection contained 10 newspapers and magazines in English and 5 in French, while the largest contained 81 in English and 40 in French. Again, several librarians complained that the content of many French language magazines was not relevant to Franco-Ontarian students and that the level of language was too advanced. Most also complained of difficulty in obtaining regular deliveries.

2. Audio-visual Materials Collections: As we have seen above, general dissatisfaction was expressed in response to our questionnaire

with regard to access to suitable French language AV materials. Unfortunately, we did not obtain very uniform information on AV materials in our interviews with librarians, so generalizations cannot even be attempted. The largest collection is in the largest French language school in our sample (which is also the 2nd largest of either type). It consists of 550 filmstrips, 20 film loops, 1200 slides, 30 multi-media kits, 200-300 TV programs registered on videotape, newspapers on microfilm, plus approximately 300 films borrowed per month from the board. By contrast, the smallest school in our sample, mixed and under the same board, has no AV collection (its book collection is also the smallest in our sample) and borrows materials from the board's resource centre. A somewhat larger mixed school, under another, more isolated board, also has no AV collection and does not even have a board resource centre to draw upon. The median collection, but which is clearly better than average, contains approximately 300 records, 75 cassettes, and 450 filmstrips; films and videotapes are borrowed from the board's resource centre. Except in relation to specific subject areas, as reported earlier, the librarians did not comment on needs with respect to their AV collections.

3. Library Personnel and Their Needs: As can be seen in Table IV.14 library personnel range all the way from only one library technician in the smallest (mixed) school in our sample to two librarians plus one AV technician plus one secretary in the largest French language school. Two or three of the librarians interviewed complained about understaffing (usually specifying lack of secretarial help) and one recommended that the Ministry of Education establish precise standards with respect to number of library assistants, etc., since there is a tendency to cut the library budget beform anything else. The librarian we spoke to in the French language school

TABLE IV.14 LIBRARY PERSONNEL IN FRENCH AND MIXED SECONDARY SCHOOLS (1975-76)

Type of School	School Code	No. of Librarians		No of Teachers' Assistants		No. of AV/Lib Technicians		No. of Secretaries	
		A	F	A	F	A	F	A	F
FRENCH	AF	-	.50	-	.50	-	-	-	1.0
	BF[1]	-	-	-	-	-	-	-	-
	CF	-	2.0	-	-	-	1.0	-	1.0
	DF	-	1.0	-	-	-	1.0	-	1.0
MIXED	AM	-	1.0	-	-	-	-	-	1.0
	BM	-	1.0	-	-	1.0	-	-	-
	CM	1.0	-	-	.38	-	-	-	-
	DM	-	1.0	-	-	-	-	-	1.0
	EM	-	1.0	-	-	-	-	1.0	-
	FM	1.0	-	-	-	1.0	1.0	-	-
	GM	-	-	-	-	-	1.0	-	-
	HM	1.0	-	-	-	-	-	-	-
	IM	1.0	-	-	.33	-	-	-	-

[1] Data unavailable

with two librarians, who did not complain of understaffing, did make one interesting point, perhaps in justification of the large staff there: the larger a library's French language collection, the more cataloguing must be done in the school library. English language materials are catalogued commercially, and French language materials could be catalogued commercially in Montreal, but the cataloguing system used there is different, so that if the French language collection is to be integrated with the English language collection, as is highly desirable to encourage use, materials in French must be catalogued at the school, increasing the need for library personnel.

Apart from their comments on the lack of appropriate materials in French (see Section IV. 3.2.1) and the high cost of French language materials (see Section IV. 3.2.3), a major problem cited by several of the librarians interviewed was lack of information. Five of the eight librarians interviewed in mixed schools and one of the four interviewed in French language schools reiterated this complaint. In the board closest to Quebec in our sample, the librarians visited Montreal regularly, finding that the best way to select books in French was on-the-spot. Publishers' catalogues were lacking in evaluative information and even the index Repertoire, published by the Government of Quebec, was found by some to be deficient in this respect. Most librarians in the North could afford trips to Montreal only very infrequently, of course, and thus were more handicapped. We also got the impression that the anglophone librarians were at a disadvantage in being able to select French language materials well and had to rely more heavily on suggestions from francophone teachers, which were not always forthcoming. Two librarians, both francophones, specifically recommended more frequent revision and distribution of Circular 15 -- in fact, one suggested that it could be rapidly updated by computer every few months. That librarian (in a school close to Quebec) also said that there is a need for an information clearing-house for French language materials and, as well, recommended the establishment of a professional association of librarians responsible for French language collections to exchange information on such materials. In line with this, during our discussions with principals regarding the adequacy of consultation services, some in the North suggested that there was a special need for consultants specializing in various subject areas who could evaluate for teachers and librarians newly available French language materials. It seems to us that the regular publication of a bulletin describing and evaluating new materials could be an important function of the clearing-house suggested above.

4. Space and Facilities: Most of the libraries we visited seemed well housed and equipped; equipment varied of course with the size of the AV collection. Unfortunately we did not see all the libraries; among those not seen were the one housing the smallest collection and one housing a substantial collection, the librarian for which complained of lack of space. He stated that it should be doubled to conform to Ministry standards; he was unable to make use of VIPS because of lack of space and equipment. The principal of a large mixed school also lamented lack of space, saying her library (which was crowded) need 1/3 more floor-space.

3.2.3 Cost Implications

A constant complaint of principals and librarians alike was the high cost of French language materials. Estimates ranged from 30% to 300% higher than the cost of English language materials. We were given a copy of an interesting report submitted by the principals of two French language schools to their FLAC concerning their extraordinary need for funds in view of the high cost of French language materials and the need of French language students for both French language and English language materials. They calculated that the total cost of textbooks for one student enrolled in a typical set of courses over four years in an English language secondary school was approximately $220, while the total cost of textbooks for a student enrolled in a similar set of courses in a French language school was over $350. As they pointed out, the difference of about $130 represented a cost to the French language school approximately 60% greater than to an English language school.

Add to this the lack of durability of many French language materials--another complaint--and it becomes clear that it is very much more expensive to establish a French language collection than an English language one of comparable size.

On the other hand, as discussed in section IV. 3.2.2., the grant system seems to be working in favour of the collection of French language materials. This is confirmed at least partially by the respondents to our questionnaire, who agreed for the most part that funds available in their schools for the purchase of French language textbooks were adequate. (However, the responses ranged all the way up and down the scale.)

At a provincial level there are cost implications in the lack of appropriate French language instructional materials. It seems to us that while in general enough money is going to schools for the purchase of French language materials, more money needs to be allocated to their translation, adaptation, and development, and into information systems.

A problem which cannot easily be dealt with by provincial government funding is the lack of French language fiction and general interest materials (magazines, etc.) appealing to Franco-Ontarian high school students which was noted by some librarians and principals. One principal gave as an example the complaint of one of his francophone students that he couldn't find any hockey stories in French in the library. This kind of material can't really be commissioned and just has to evolve. However, remedial language programs and materials might improve the French language ability of some students to the point of enjoying French language novels and magazines which seem too difficult at present. One superintendent specifically pointed out the large numbers of "high interest-low difficulty" materials available in English, as compared with an almost total lack in French.

3.3 SPECIAL PROGRAMS

3.3.1 Extra-curricular Activities for Cultural Enrichment

Extra-curricular activities are obviously an important avenue to the development in francophone students of their ability to participate in the great French language culture which is their birthright, and to the consequent development of their pride in being francophones and a generally improved self-concept, as well as to their intellectual enrichment. This was clearly the view of the principal of the largest French language school in our sample, and it was borne out by the extraordinary number and variety of cultural activities for students in his school. In general, the French language schools in our sample appeared to be doing a more than adequate job in this area and the principals of French language schools who responded to our questionnaire were clearly well satisfied with their extra-curricular programs.

In the mixed schools French language activities are much more of a problem, naturally. Principals are torn between a genuine desire to help their francophone students to develop culturally as francophones and an opposing desire to maintain a spirit of unity within their schools, which they fear would be endangered by too many separate activities for francophone students. Moreover, practical realities tip the balance overwhelmingly in favour of integrated activities (in which English tends to be the language of communication, although a bilingual teacher-advisor can inject the use of French to a certain extent). These realities are: a) that there are only so many teachers and to create separate groups is to increase the amount of teacher time needed for the extra-curricular program; b) that in most mixed schools bilingual teachers must, instead of teaching a course in French only, teach it in both French and English, so that more time is taken up with lesson and materials preparation and less is available for the organization of extra-curricular activities; c) that in some mixed schools the proportion of bilingual teachers is very low and these few teachers are over-worked as translators of various types of information the school may wish to distribute in both languages (such as course outlines). As can be seen in Table IV.15, the result is that very few activities are organized to enhance francophone students' awareness of a sense of identification with the French language culture. Yet even in the smallest school, the number of English language activities organized (including sports) is amazingly large. That francophone respondents to our questionnaire from mixed schools are unhappy with this situation is evident: the mean rating of the range of extra-curricular activities available in mixed schools, setting aside the question of language used, was 3.4.--i.e. most respondents felt that their schools' programs were adequate; in contrast to this, the mean rating of the range of French language activities available was 1.3.--i.e. most respondents felt either

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TABLE IV.15 EXTRA-CURRICULAR ACTIVITIES

School Type	School Code	Yearbook	Newspaper	Radio	Television	Debation Club	Public Speaking Contest	Reach for the Top (Génie en Herbe)	History Club	Film Club	Writer's Corner	Poetry Recitals	Theatre	Choir (Harmonie)	Singing Cafe	Variety Night	Band - Concerts	Club Franco-Jeunesse	French Week	% Francophone Enrolment
FRENCH	AF		X	X	X								X							100
	BF	X	X										X	X			X			100
	CF	X	X	X				X	X	X	X		X	X	X				X	100
	DF	X	X			X				X			X				X			100
MIXED	AM		X^s		X						P		X							29.2
	BM	X^s	X^s			P	X						X				X^b			51.3
	CM									P			P							36.2
	DM	X^s	X^s										X					P		24.7
	EM				X								X					X		27.5
	FM		X	X				P					P							49.6
	GM												P	P				X		32.3
	HM																			34.4
	IM	X^s					X					X	X	X^b			X^b			46.6

X = existing activity

P = priority for future establishment

s = section (of Yearbook/paper)

b = truly bilingual activity

Complete lists of activities were received for schools CF and DF, whereas the principals of schools AF and BF simply indicated orally their activities which *most* contributed to a French language ambience.

that the range of French language activities available was very inadequate or that such activities were entirely lacking.

In our interviews with the principals of mixed schools, two mentioned lack of teacher time and energy as limitations to the development of French language activities. Two others spoke directly of their desire to avoid segregation and polarization, but one of them admitted feeling that his students were losing out by losing their francophone identity. (In line with this, two principals spoke of their desire for French language activities which would attract anglophone students, both as audiences and as participants--for example, a French festival, including easy-to-understand songs and skits. Such a festival had been tried at the school of one of the two principals, but the francophone students had not allowed anglophone students to attend, for fear of disruptions, and the festival was not a success!) On the other hand, one Francophone principal spoke of the difficulty of getting students interested in further French language activities (there were three organized in his school). An anglophone principal spoke of students preferring to concentrate on sports, but also stated that anglophone participation in sports was distinctly higher than francophone participation (attributed by him to the lack of sports programs in the elementary separate schools). He and others also mentioned that board cutbacks in the provision of after-hours transportation were making it more difficult for rural students to participate in extra-curricular activities. Finally, a francophone principal of a rural school felt that one hindrance to the establishment of French language activities in his school is the lack of francophones in Grade 13, who would provide leadership.

The French language activity most frequently established in the mixed schools in our sample is drama, and it is also the one most frequently mentioned as a priority for future organization. One anglophone principal stated that French drama is particularly needed for language development, as one of the biggest problems for his francophone students is to express themselves and articulate their feelings. (In connection with this, a problem cited by the principal of a French language school is the difficulty of finding plays in French suitable for performance by high school students; he suggested that research needs to be done to discover suitable plays.) A barrier to French language drama activity at one mixed school is lack of encouragement from francophone parents, who prefer to attend English language performances. (See Section 3.1.)

Another fairly frequent French language activity is radio or television production. This seems to be an excellent activity in that it encompasses a number of other activities and allows students to use varied talents. For example, one principal enumerated the following types of programs prepared by his students for broadcast on the community TV channel: editorials, interviews, music, art, film festivals, and fashion shows.

3.3.2. Visits by Performers and Artists, and Cultural Field Trips.

Two French language schools in our sample collaborate to organize visits to their schools by popular francophone peformers--usually singers--as part of an effort to make their students aware of the vitality, expressiveness, and validity of their own French language and culture. (These visits do not extend to the mixed schools under the same board and we sense that possibly there is an unfortunate lack of cooperation between the two sets of schools.) The principal of a fairly isolated mixed school under another board arranges annual visits to his school by two different French language theatre troupes.

The principal of one of the two French language schools also expressed the desire to arrange, perhaps through a grant from the Ontario Council for the Arts, to have a francophone musician stay at his school for a period of time, as an artist in residence, to collaborate with the students on the creation of orchestral arrangements of the music de chez nous; at present, his students play American music because that is what is available as orchestral scores. He would also like to be able to arrange visits to his school by francophone painters and other visual artists, to raise the aspirations of his students.

One principal of a mixed school near Quebec spoke of cultural events in Montreal and Ottawa saying that more participation in them by his students would be desirable. This reminded us of the extraordinary trips to faraway places--Mexico, Greece, the Canaries-- organized by students themselves through various ingenious fund-raising schemes. It seems to us that even in schools where French language extra-curricular activities are considered, for the most part, impractical, francophone students should be encouraged to organize French language cultural field trips--to Montreal, Quebec City, and even France or Martinique.

3.3.3. Remedial Language Programs.

Remedial programs are discussed in the next subsection, but they should be mentioned briefly here; respondents to our questionnaire gave low ratings to remedial reading programs available in their schools. As we have noted several times, level of language seems to be a great barrier to the ease of comprehension and thus use of French language reading materials. It may be impractical to increase appreciably the number of remedial reading teachers per school. What seems called for is the development of language instruction programs specifically designed for Franco-Ontarian students, to bridge the gap between Franco-Ontarian French and the French used in materials published in France and Quebec, which can be used in regular classes as part of the Français curriculum.

3.4 THE SCHOOL IN THE COMMUNITY

With regard to cultural and recreational activities, the Symons Commission declared that:

> The school occupies a central role in the cultural life of the linguistic minority. It is therefore important to the cultural development of the French-speaking community that their schools should play the fullest role possible in this field. The French language schools must truly be community schools and easily accessible to the general population of the linguistic group they exist to serve. The French Language Committees, in co-operation with the school boards, must find the ways and means to ensure that such a development occurs.
>
> -Report of the Ministerial Commission on French Language Secondary Education, 1972, p. 51.

Three possible types of school-community activities emerged in our interviews with principals:

a) adult access to the school library;

b) night courses for adults;

c) attendance by the community at cultural events organized by the school.

Only one school in our sample (a French language school) had opened its library to adults in the community. It had been designated a community school and had received a special grant which had enabled it to staff the library two nights a week. It was felt to be a real loss to the community that the termination of the grant made it impossible to continue to do so.

Six of the eight mixed schools at which the question was discussed and one of the two French language schools were all used for night courses offered either by their boards or by nearby community colleges or universities. However, in at least one mixed school, and probably in two others, courses were offered only in English. One principal said that whether courses were taught in French or not was simply a question of demand.

All the principals of mixed schools and at least two principals of French language schools regarded their schools as community centres, open to use by any group in the community, and several noted that this use of their schools was intensive. Also, some principals mentioned the very active roles played by their staff members in several community organizations. The francophone principal of one mixed school perceived a role for his school of bringing the two linguistic communities together. Outside groups were occasionally sponsored by another mixed school and members of the community were invited to attend such events, but the principal did not really see this as a role of the school. Only two principals, both of French language schools, can be said with certainty to perceive their schools as having an important role of cultural leadership to their respective francophone communities.

One of those principals has had experience in this cultural leadership role. His school received special funds last year to produce, in cooperation with the local community college, a series of several plays in French, spread over the school year. As he explained, the francophone community there is not oriented to the theatre and was not ready to attend such a profusion of plays, so that the series was poorly attended. However, a more gradual , small-scale approach could, he felt, slowly win audiences and ultimately be of great benefit to the community.

The other principal, who has had the experience of bringing in francophone singers to perform for his students, would like to obtain a relatively small capital grant which would allow his school to sponsor visits by "les grandes vedettes" such as Gilles Vigneault -- visits of sufficient duration that tickets for the peformances could be sold to the public. The investment would be justified by the concentration of francophones in that district; it would almost certainly be repaid, and such performances would immensely accelerate the development of the French language culture in the area.

4. SUPPORT AND SPECIAL SERVICES

The services dealt with in this section can be divided in two groups: (a) special services to students and (b) special services and support for teachers. They are dealt with together because they lie generally outside what is usually thought of by the public as "regular classroom instruction". For the purposes of public policy on French language instruction, they are not covered by the legislative requirements of Part XI of the Education Act,1974. This part of the legislation deals primarily with the organization of students into classrooms and schools on the basis of language; the organisation of support services is left primarily to the discretion of school boards, guided by regulations and the advice and assistance of officials of the Ministry of Education.

In identifying this group of services as being an area of service need, we have been guided mainly by the opinions of Franco-Ontarian educators rather than by the analysis of any specific indicators of service level. At one point early in the study, some indicators were examined, such as ratios of professional staff members (other than teachers) to student enrolments, together with data on school boards in the United States and in other Canadian provinces. This examination revealed essentially that such an indicator was a useless statistical refinement. Perhaps if an entire province were studied, the ratios could provide an overview; when dealing with a few school boards, examined in detail, they were meaningless. The selection was based, instead, on opinions gathered through interviews and through the questionnaire survey of principals of secondary schools.

This section is not intended to propose a detailed shopping list of services to be changed or created, nor to describe the operational problems of any single school board. Because of the great differences between school boards as regards needs, philosophies and solutions, a descriptive approach would simply reveal differences without explaining reasons and a prescriptive one would do injustice to local needs and conditions. The purpose of the analysis is to provide an understanding of the types of service requirements, not specifics of a given institution.

As a general rule, these service needs are most acute at the secondary level in our sample. Two factors apparently contribute to this: First, the elementary school systems operating in French have a generally long history and are well-established; a much longer period has been available, therefore, for gradual introduction of support services as needs arose. Secondly, the French language students at the elementary level tend to form a much larger proportion of the total student population than at the secondary level. This is due, as noted earlier, to the gravitation of Francophones to the Roman Catholic separate school system at the elementary level; at the secondary level, they form a much smaller proportion of the population in the public school boards. The consequence is that the separate elementary boards are in a better position to set up parallel support services for both language groups on a more nearly equivalent basis. In the following, we shall refer to needs without specifying differences between elementary and secondary level except where this appears particularly relevant. If not otherwise stated, it can be taken as understood that the problem exists at both levels, though with particular acuity at the secondary level. This point is important to remember in connection with the earlier discussion of mixed secondary schools, which are all affected seriously by the problems described in this section.

4.1 IDENTIFYING THE AREA OF NEED

The decision to consider support and special services as an area of need was based on the questionnaire survey sent to school principals and on the case study interviews. No section of the survey resulted in such strongly negative results as that dealing with special services. Table IV.16 shows the responses to the portion of the questionnaire dealing with special services. From it, one notes that the only area not receiving a negative response relates to the quality of counselling and guidance services, though there is a marked difference in assessment of satisfaction as between French and mixed secondary schools even on that item. Unfortunately, we do not have data which permits comparisons with the opinions of principals in English-speaking secondary schools, so that one may well be dealing with what is a problem area for the entire educational system. In interpreting and commenting on the different areas identified, we have drawn heavily on the interview data gathered in the case studies.

4.2 SERVICES TO STUDENTS

4.2.1 General observations on special education services

Discussion of special education problems must take into account the fact that different boards operate following rather divergent philosophies and practices, reflecting evolution in thinking on these topics during the past few decades. The most severely retarded and handicapped children in our sample were generally separated from the main stream of education services and attended in specialized institutions. The treatment of other, less severe learning and social problems was widely variable. Table IV.17 shows the percentage of elementary schools in each school board reporting special education classes, and the percentage of students, by language, enrolled in them. For instance, in two boards (B and D) none of the

TABLE IV .16 (Page 1 of 2)

SECONDARY SCHOOL PRINCIPALS' RATINGS OF SPECIAL SERVICES

Service[2]	Mean Ratings[1]	
	French Schools N = 22	Mixed Schools N = 26
Remedial reading courses	2.0	1.4
Other remedial courses in French	1.1	1.1
Special education in French (for retarded)	1.7	1.1
Information provided by elementary schools	2.0	2.1
Guidance and counselling in French	4.4	2.5
Diagnostic tests available in French	1.2	1.2
Treatment of emotional and learning problems in French	1.2	1.6

[1] Rating scale:

N Not Applicable

0 Entirely Lacking — 1 — 2 Inadequate — 3 Adequate — 4 — 5 Excellent

[2] For text of items see page 2 of table.

TABLE IV . 16 (Page 2 of 2)

SECONDARY SCHOOL PRINCIPALS' RATINGS OF SPECIAL SERVICES:

TRANSLATION OF ITEMS AS THEY APPEARED TO RESPONDENTS

Translation of Items[3]

6. SPECIAL SERVICES

Please rate your situation with respect to:

6.1 The magnitude of the remedial reading courses offered.

6.2 The magnitude of the other remedial courses offered in French to students of normal intelligence, but who are experiencing difficulties in certain subjects.

6.3 The general quality of the special education service offered, in French, to slow learners.

6.4 The information provided by the elementary schools which is needed in order to identify, quickly, students requiring special education.

6.5 The magnitude and quality of the French-language guidance and counselling service (in particular, number of French-speaking guidance counsellors).

6.6 The number of diagnostic tests available in French, with respect to the treatment of emotional and learning problems.

6.7 The general quality of the service in French, with respect to the treatment of emotional and learning problems.

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[3] Deleted here, but listed beside each item in the questionnaire, were the rating scale numbers.

TABLE IV -17

SPECIAL EDUCATION CLASSES AT ELEMENTARY LEVEL: PERCENTAGE OF SCHOOLS HAVING CLASSES AND PROPORTION OF STUDENTS ENROLLED BY LANGUAGE AND SCHOOL BOARD

Board	Percentage of Schools Offering Special Ed. by Language		Percentage of Total Enrolment Receiving Special Education by Language	
	Eng.	Fr.	Eng.	Fr.
A	43	59	1.9	4.8
B	0	0	0	0
C	47	75	4.5	3.4
D	0	NA	0	NA
E	29	NA	2.5	NA
F	53	NA	3.1	NA
G	25	9	1.0	.7
TOTAL Boards operating only English Schools	35	NA	2.5	NA
Boards operating English and French Schools	28	34	1.3	2.6

schools reported provision for special education, whereas most of the French schools in boards C (75 per cent) and A (59 per cent) provided such instruction. On the other hand, boards B and D made use of facilities provided by the Ministry of Education at the regional level, thus compensating at least partially for the absence noted. Within-board variations are equally striking: In board G, 25 per cent of the English schools had special education classes as compared to only 9 per cent of the French schools operated by the same board.

These figures do not necessarily reflect higher and lower levels of service in an absolute sense - it is possible through other measures than the establishment of special education classes to deal with learning and emotional problems. School boards followed radically different philosophies for dealing with this area, and there was no basis on which this research could attempt a differentiation. The variability in the data available suggests that there may be very wide margins of difference in the level of service between boards, but this is apparently linked to factors of general board philosophy and organization, rather than to any inherently different approach to the two language groups. In our interviews we found few criticisms of the adequacy of special education services at the elementary level. For this reason, at the elementary level we have not classified this general area, as a whole, among the areas of major unmet service needs or potential inequality. More data gathered with greater detail on this specific topic might reveal, of course, important differences in service level and unmet educational needs. The smaller boards in our sample had less in-school special education classes, but each had worked out different arrangements to compensate for this - work with regional offices of the Ministry of Education, pooling with a larger board in the same area, use of local medical and other facilities and so forth.

Services to the severely retarded were almost entirely excluded from our consideration. The specific nature of the problems encountered and the small numbers of pupils involved made it inappropriate to undertake a study at this time. Our approach did not permit us to make any assessment of the suitability of the treatment received nor, indeed, of the relevance of the language variable as a component of the problems dealt with. On the other hand, in order to conserve comparability of services between boards, in the financial figures reported in Section III separate accounts were prepared to show costs of institutions for the retarded in the boards where they exist.

In response to the questionnaire sent to high school principals, one finds that "the general quality of special education services offered in French to retarded students" is rated extraordinarily low by mixed secondary schools (average 1.1 on a scale of 5) and only slightly higher in French secondary schools (average 1.8).

Our attention was called during the study to a few cases where retarded Francophone students of secondary school age were in special schools where they received very little instruction in their native language, though bilingual teachers were available to work with them. The opinion was expressed that, if at all possible, such students should be integrated as special groups into the nearest available French high school or mixed secondary school, in order that they could be taught to the extent possible in their own language and in a cultural environment familiar to them. We feel this should be reported but we are not in a position to assess the facts of the cases concerned.

4.2.2 Remedial teaching at the secondary level By "remedial teaching", we refer to courses offered to students within normal ranges of intelligence but who have learning difficulties of either a permanent or temporary nature. The very negative response to the questionnaire items on remedial instruction in subjects other than reading (remedial reading ratings: 1.4 and 2.0; remedial courses in other subjects: 1.1 and 1.1 respectively for mixed and French language schools) reflect the report by many school principals that such facilities do not exist in their schools (12 out of 24 mixed secondary schools, 8 out of 20 French secondary schools). The ratings for the number of remedial reading courses reflect the greater degree of attention given to such areas, though these appear to be absent from numerous schools as well, and the overall judgement is also quite negative.

One might postulate that the failure to provide such courses in so many high schools is an implicit reflection of priorities and that remedial instruction is not considered essential. However, if one turns to the interview data, the contrary impression is derived. Principals regularly report the need for remedial teaching in reading both French and English and in mathematics, sometimes emphasizing at length the importance of this for Francophone students. The maximum number of teachers involved in remedial instruction was two persons (reported in four high schools); some schools reported no personnel at all. Estimates of need made by principals of medium-sized high schools were in the range of 3 to 4 teachers. From Table IV.18 one notes that in mixed secondary schools having remedial and special education staff the persons involved always included a bilingual.

An area of related need emphasized particularly by two superintendents and mentioned by some principals was that of in-school treatment

TABLE IV.18

SPECIAL SERVICES PERSONNEL IN SECONDARY SCHOOLS REPORTED IN CASE STUDIES

SCHOOL CODE	Number of personnel involved in:						NOTES
	Special Education		Remedial Teaching		Guidance		
	Bil.	AU	Bil.	AN	Bil	AN	
A	0	0	0	0	1.0	1.0	
B	0	1.0	1.0	0	2.0	2.0	
C	0	0	.33[a]	.33	1.67	.67	[a]remedial math. in both languages
D	0	0	0	0	.67	.50[b]	[b]Rough Average: 2/3 before Xmas, 1/3 after
E	0	0	1.0[c]	0	1.33 (1.83	1.50 1.83[d])	[c]90% remed. reading in both langs. [d]1976-77 figures
F	0	0	1.0[e]	1.0[f]	1.0[g]	2.0[g]	[e]all subjects; [f]reading in English [g]figures subject to revision
G	1.0[h]	0	0	1.0[i]	1.0	2.0	[h]special ed.: [i]remed. English and math
H	1.0	0	1.0[j]	0	1.50	1.50	[j]reading and math
I	0	0	.17	.33[k]	0	1.0	[k]remed. English and math

facilities for secondary students having behavioural problems.

4.2.3 Diagnostic services The interview data suggests a marked contrast in the availability of diagnostic services between larger and smaller boards, at both elementary and secondary levels. Testing of Francophone students for special problems must be carried out, in some cases, by Anglophones. One board reported, for example, that it had two posts for psychologists, one Anglophone and one Francophone; however, despite repeated efforts, it had not been possible to recruit a qualified Francophone. It appears that for any pupil having problems, all boards do have access to the necessary diagnostic facilities with provision for Francophones to be dealt with in their own language. (Treatment may be a different matter but, as mentioned earlier, has been excluded from consideration here.) The specific unmet needs apparently involve students having less severe learning or emotional difficulties. There would appear to be an important unmet need at the level of the classroom teacher who has a "problem pupil" and is uncertain of what steps to take - "wait and see", try diagnostic testing or ask for specialized help. The problem is linked to the absence of suitable test materials (see below). Secondary schools generally feel they receive little information from elementary schools to assist in determining students requiring special attention.

4.2.4 Guidance and counselling This area refers only to secondary schools. The difference in assessments between mixed and French secondary schools on the survey regarding quality of services appears difficult to explain (average ratings 2.5 and 4.4 respectively for mixed and French high schools). Staffing levels do not appear to be the cause. In our sample, there appeared to be approximately equivalent staffing for both Anglophones and Francophones in mixed secondary schools (see Table IV.18

showing reported full time equivalent staff members for the areas of guidance, remedial instruction and special education). On the basis of interview data, one might advance a tentative hypothesis related to the social system of mixed secondary schools. In the words of one person interviewed, the Francophone counsellors have a real need for "esprit de corps". The phenomenon of isolation, together with the possibility (referred to earlier) that mixed secondary schools may have some streaming effects detrimental to Francophones, may contribute to the differential assessment. It should be noted however, that the rating of guidance services is generally within the satisfactory range even for mixed secondary schools. Problems such as they are, are primarily related to the special problems related to materials used by counsellors - tests and career information. Tests are dealt with in the next section.

The number one complaint in this area, echoed in almost all schools contacted, was the difficulty in obtaining French language information on careers and post-secondary education. Commentaries on the content of the Ministry of Education Student Guidance Information System were generally favourable, except that not enough career descriptions are available in French. (One counsellor noted that when she requests information in French, the service offers to print her translations.) Similar requests for translations were entered regarding monographs from the Guidance Centre.

In more than one school, specific criticisms were made of the content of SGIS and other information. Not only is the information in English, our informants felt that it does not give Francophone students any idea of the possibilities for employment as bilinguals or simply as Francophones. Three separate principals used almost the same phrasing to say: "Students get the message that French is useless." The principals and counsellors, on the other hand, feel that it is advantageous to be a bilingual in Ontario and that, where applicable, career information should point out the advantages of being a bilingual in choosing a given career.

With regard to general atmosphere of counselling, these comments and others suggest that students may be seriously affected by what might seem to be "details" at first glance: University posters in French are needed regarding programs in the French language. Information from the Ministry of Education regarding programs such as OSAP, Horizon, Experience '77 and so on should always come in French at the same time as in English, and in sufficient numbers of copies. Without this, counsellors in mixed secondary schools complain that it is necessary to choose between maintaining linguistic equality and distributing information as soon as it is available so that students can meet deadlines.

Two suggestions were made for general improvement of services in this area: First, in-service training in French was particularly needed in order that the counsellors would be better able to deal with the problems that are specific to Franco-Ontarians. Secondly, there appear to be few available materials in French on counselling and group therapy techniques. Suggestions were made that it would be worthwhile to translate American material on group therapy, particularly on growth groups. These comments are related to a general perceived need for more services for students at the intermediate and secondary level requiring small group treatment for emotional problems.

4.2.5. French language tests available for guidance, remedial instruction and special education The data indicates that this is a major problem at both the elementary and secondary level. A study of interviews with about twenty persons involved in, or familiar with, this domain reveals a repeated refrain: Nothing really exists which is suited to the needs of French-speaking students in Ontario. Typical comments refer to tests available from sources in Montreal or elsewhere but then point out that the tests are not suited to the students in Ontario. Improvisation is rife, with testing going on with whatever seems to be available, including translations of aptitude tests made by personnel in the schools themselves A more specific breakdown of comments reveals the following problems:

a) Most types of tests for diagnosing special education problems exist only in English; those that exist in French do not have norms related to Ontario.

b) Achievement tests are requested, particularly in basic subjects such as English and French. This is a major problem, since it is perceived that Franco-Ontarians have different performance levels and specific problems not found elsewhere. Particular requests were made for tests of French in Grades 9 and 12 in order to determine the progress made. At present all school personnel can do is request "feedback" from colleges and universities as to whether students have the required level of French and what types of problems have to be overcome.

c) Tests are frequently administered in English and interpreted for bilingual Franco-Ontarians. However, given the obvious differences in population characteristics, there seems to be no scientific basis on which this might be done.

d) As mentioned earlier, diagnostic services constitute a problem .

Some informants noted that, because of distance, it was difficult to use the services theoretically available and, therefore, they tried to deal with problems primarily at the school level, rather than refer students elsewhere. Similarly, some boards obviously had trouble in maintaining French language personnel capable of dealing with testing and similar problems.

e) Although not one informant specifically requested it, one sensed that there was everywhere a need for an information system providing data on what tests exist for Franco-Ontarians and how to "get by" in meeting problems where the tests do not exist.

4.3 SERVICES TO TEACHERS

No area is more difficult to deal with systematically than that of support services to teachers. Boards have radically different approaches to the organization of supervisory and consultative services; moreover, the value of the services, at least as measured by impact upon students, is difficult to assess and is sometimes contested. Most of the services included below are subject to this general reservation that, even if perceived as areas of unmet needs by some persons interviewed in our case studies, these services may nevertheless not constitute "needs" in the view of others.

4.3.1. Translation services. The one universally accepted need at both the elementary and secondary level was that of translators. At the elementary level the problems appeared primarily to affect board personnel concerned about communicating with schools, parents and others in French. In the secondary schools, the need directly affected teachers, who were called upon frequently to improvise curricular materials for their students on the basis of existing English language sources. In some places even when the possibility of translation services at the board offices was raised, a request was made for services available in the schools themselves. One got the impression that, even if adequate curricular materials were available for putting in the hands of students, a portion of the need would continue to exist - both because it would be extremely useful to have materials in French from a variety of sources not related to the usual textbooks and resource materials prepared for classrooms and because schools have a variety of other communication needs - such as preparation of yearbooks, course guides and so on. In many senses, this sort of translation is intended to make up, at least partially, for the fact that the general cultural atmosphere outside the school is English and that available resources are rarely in French.

4.3.2. Professional development. Our investigation found a generally high level of satisfaction with present methods of professional development, primarily based on "professional development" days. Problems apparently arose in connection with specific needs, such as obtaining French language guest resource persons in isolated areas. The more isolated boards and those with smaller numbers of Francophones enrolled, appeared to place particular emphasis upon the cooperation obtained from Regional Offices of the Ministry of Education in organizing assistance to Francophones. More detailed discussion revealed problems of a substantive nature: Boards tend to rely upon their own human resources in organising much of their professional development and, in the smaller ones, the range of specialized expertise available to Francophones appeared to be somewhat limited in relation to most subject areas. This was particularly evident in relation to certain subjects taught at the secondary level for which textbooks may not exist in French and where teachers may themselves have received limited training in French - trade and commerce subjects, arts and similar areas. In addition one notes the particular problems encountered for in-service training of persons in special education and counselling roles: Because of their small numbers, Francophones tend to be isolated and do not have easy access to relevant opportunities for development related to specific needs of Franco-Ontarian children; however, given their high professional level and personal skills in obtaining information, these educators frequently overcome many types of minor problems and obtain the advice and training they need.

4.3.3. Consultancy services and supervision. The role of subject-matter consultants has been seriously questioned over the years; many boards do not employ such consultants and prefer to concentrate resources at the school level. Others share consultancy roles among persons at the level of superintendent. In short, the value of consultancy can frequently be questioned and therefore needs in this area may not receive general priority. The survey of secondary school principals revealed however a generally quite low rating for the level of consultation service provided in French within the school boards (1.7 average rating for both French and mixed secondary schools), which was considered to be deficient as compared with the general level of consultation services independently of language (average ratings of 2.3 and 2.4 for mixed and French secondary schools respectively). Our interviews with Francophones both at the elementary and secondary levels suggested a strong demand for consultative services for teachers dealing with Franco-Ontarian students: so many problems appeared to exist, so few materials were available and the general environment was so inhospitable to the survival of French culture that it was felt the schoolroom teacher needed every possible form of assistance. On the other hand, we obtained the impression - very hard to verify in small-scale studies - that, by comparison, Anglophones tended to place less value on the utility of such services and to express higher levels of satisfaction with existing services. In any event, Francophones were very strongly supportive of ideas for improving consultancy services and sometimes expressed overt criticism of inadequacies in them.

A particular difference appeared in relation to services of the regional offices of the Ministry of Education. As with matters of professional development, smaller and more isolated boards tended to desire much greater levels of service from the regional office. The decision to phase out subject specialists and have mainly "generalists" in regional offices was considered unfortunate in the smaller boards, which seemed to desire more direct involvement. Conversely, in the larger boards there seemed to be a concern to ensure local control of consultancy services. Our impression is that the smaller boards face serious problems in providing adequate support for the relatively few Francophone teachers each employs and, therefore, that the reintroduction of specialist regional services in French would be acceptable, even if English ones remain as they are. Obviously, such conclusions are very tentative and, even if correct, would have to be verified against a much larger number of boards than those in our sample.

SECTION V: AN INTERPRETATION

1. WHY AN INTERPRETATION?

Each section of this report contains, so to speak, its own conclusions. Section II provides a statement of the problem as it appeared as a result of our research (rather than as it was defined before the research). Section III describes costs in the light of inter-board comparisons and shows specific cost trends as they apply to the school boards in the sample; the trends are then "explained" by studying board allocation mechanisms and isolating significant general characteristics about how decisions on cost are made; finally, an analysis of several situations shows that there may be costs unrevealed by the general trends, and then the costs are critiqued in the light of different points of view on the question. Section IV presents the case for believing that, across the whole of the boards sampled in the study, there are areas of significant unmet educational needs among Francophones. In short, the report as a whole is a statement of conclusions derived from the case studies.

It is customary that the final section of a research report deal with conclusions. In the present case, a slight modification of the usual format seems necessary. Our goal is, in fact, to show how the different sets of conclusions relate to each other. In addition, because of the nature of the research, one must try to come to grips with the general significance of the conclusions: the case study approach makes it impossible to make ready generalizations beyond the boards in the sample.

2. SOURCES OF CONFUSION

The objective of research related to policy making should be to clarify issues. The reader may justly ask what it all means. The results of the study appear to be confused and confusing. We believe that the cause of this is that the research design has succeeded in reflecting accurately the true situation regarding educational services to Franco-Ontarians and the costs of the services. Things really are confused. If this study is to clarify anything, as researchers we must leave the realm of accurately describing our findings and provide an interpretation that goes beyond the confines of the study. We propose to do so in the following lines but must insist that the interpretation given of policy issues is not a direct result of our research. Even if we point out alternatives, those alternatives are not neutral, because the questions being asked are highly selective.

The educational system as a whole is a large sub-system of our society and operates in response to a very complex set of pressures and balances. If our research asked a question about a relatively simple component of that sub-system -- for example, the average cost of desks bought by a school board during a two-year period -- we should expect a succinct answer. However, this study has raised the whole issue of how a minority group is treated and how much this treatment costs. If one asked a similar question about society as a whole -- how does it treat its minorities? -- it would be foolish to expect a research study to provide a simple answer. In very general terms, that is the reason for the apparent "confusion": the treatment varies a lot, and trying to put a cost on the whole business is a monumentally difficult task. On the other hand, some specific sources of confusion can be pointed out. Two are particularly important:

a) The objectives of the provincial grant system for minority language education have never been explicitly set forth in laws or regulations in such a manner that they will be binding upon the actions of school boards in making their internal allocations. The autonomy of school boards vis-à-vis the provincial government and its financial controls is a deliberate act of policy. It is possible to override local control of education, but only for matters that are considered extremely important for the broader good. Legislation introduced in the spring of 1977 to force one school board in Ontario to build a French language secondary school is a visible example of the exercise by the provincial government of such powers. If the objectives of the grant system for French language instruction have not been tightened up, it must be in part because the whole grant system is intended to foster local autonomy. "Confusion", in this context, means simply that different local boards have defined differing objectives and implemented them in their own fashion. Clearing up the confusion is possible, but it requires an important change of policy.

b) The relationship between educational services and costs is not direct, either in our study or in most other educational settings. The most important component of classroom instructional costs is the salary of the teacher; nevertheless, that salary is largely independent of what textbook is used (if any), what methodology of teaching applies and what the contents of the course may be. Nor, for that matter, is the salary level a direct result of what language is spoken. This explains why it is so difficult to make generalizations that link costs directly to what happens in classrooms.

3. SECOND THOUGHTS ON ELEMENTARY COSTS

The analysis of costs at the elementary level presented in Section III was done with as much dispassionate objectivity as possible. Trends in the data were noted and the main tests of significance applied were statistical. At this point it may be appropriate to look at the data from a different angle, looking at significance in the light of policy options and taking into account data from different parts of the report.

One major finding was that cost per pupil is higher for Francophones than for Anglophones in bilingual boards. Table III.14 provides data in terms of actual dollars expended that enable one to understand the import of this finding. Across all the bilingual boards in the sample, average total ordinary expenditure per pupil was $40.00 higher for Francophones than Anglophones, a figure not far from the $54.00 used in the calculations of the French language grant. If one examines more closely the component costs of that expenditure, the only statistically significant differences found affected plant and maintenance, educational services and supplies. How important are these items in the light of the service factors brought to light in the study? The per-pupil cost differential on plant and maintenance was quite substantial: $15.60. As a per-pupil cost, this difference could reflect different building occupancy rates, which our study did not specifically measure. It was obvious that, with some exceptions, buildings had been built and their occupancy had varied as a result of many local factors, in which the mixed language situation was but one element. For example, there were some buildings underoccupied perhaps because the current declines in enrolment had not been predictable fifteen, twenty or thirty years ago when building decisions were made. The differences found in expenditures between French and English reflected historical developments of a long-term nature. Our discussions with board personnel revealed nothing to suggest that the funding levels reflected a conscious differential expenditure policy.

Supplies and educational services are a quite different matter. The two reflect areas where significant unmet educational needs were found in the section on services. The supplies expenditures show that the average expenditure on Francophones is $42.50 per pupil, or $7.40 more than the $35.10 for Anglophones. This represents 21 per cent more and reflects what was mentioned in all boards -- a recognition that books and other French language supplies cost more. The expenditure on educational services is similarly weighted: $20.50 per Francophone as opposed to $15.60 per Anglophone, a difference of $4.90 or 31 per cent more. In proportionate terms, it would appear that both items reflect a tendency to recognize problems revealed by our study of services.

Returning to the original cost differential of $40.10, our analysis has raised doubts as to its implications. The major element in it, in absolute terms, was plant and maintenance, which could not be attributed to deliberate current expenditure policy. On the other hand, the items which might reflect differential treatment of Francophones - to meet their special educational and cultural needs - were relatively small. The extra amounts for supplies and educational services represent, as a fraction of mean per-pupil total ordinary expenditure in the bilingual boards ($1,213), approximately 0.6 and 0.4 (or a total of one) per cent. The analysis in Section III pointed out that instructional salaries and wages constituted the major component of total costs. If one examines the total instructional expenditures of the bilingual boards, one finds that the differential in favour of Francophones is $965.90 per pupil as against $953.20, or $12.70. The origin of this difference in favour of Francophones (statistically non-significant though it may be) is in the expenditures made by Board G. As was noted in the discussion of allocation models, the one elementary board making expenditures favourable to Francophones as regards instructional salaries and wages has subsequently converted to a different allocation system in which pupil:teacher ratios are balanced between language groups; this means that it has shifted to a system which, given the higher salaries of Anglophone teachers, will presumably mean that more will be spent on Anglophones than Francophones. Thus, unless some compensating action occurred in the other boards, we have to assume that the survey of costs might well have given opposite results if applied to a period one year later. Because instructional costs are so large and the other factors are so small, this would mean that, at least for the boards in the sample, total internal allocations for instruction and educational services would tend uniformly to favour Anglophones over Francophones. This would explain, perhaps, why the responses from elementary directors of education included remarks about the advantages of a system of earmarked grants as well as a discussion of disadvantages.

The interpretation of this analysis is, let us quickly add, not simple or straightforward. The discussion has dealt only with internal allocations of bilingual boards. It will be remembered that the original cost analysis also showed that two of the three bilingual boards spent more per pupil than the coterminous unilingual ones, which raised two possibilities, neither of which can be definitively tested:

a) The differential costs of education in a mixed language situation were distributed across both the English and French sectors of the boards. In this case, the internal allocation is hardly relevant as a measure of differential expenditure in a mixed language situation.

b) The levels of expenditure resulted simply from the availability of additional revenues; boards qualifying for higher grants are able to expend more. In this case, the internal allocation is relevant and the trends noted would appear to be acting against the hypothesized aims of the grant policy, providing added funds to meet special needs of Francophones.

In short, we have not solved the outstanding disputes about how the money has been spent or should be spent.

But what about future policies? If it were decided that additional funds should be spent to further Francophone education at the elementary level, then the analysis has important implications: The present allocation mechanisms in the boards studied would tend to continue to provide differentially more funds to Anglophones for instructional salaries and wages. (Obviously, they might change in response to pressure or as a result of evolution in levels of teacher qualification, but we are just considering how they operate now.) It is possible that, if additional funds became available, they would not be used on general instructional costs but on targeted services to Francophones --translation, consultancy, textbooks and materials, and so on. This is possible. However, school boards are under considerable pressure to maintain staffing levels in the face of declining enrolments, in addition to the usual pressure to keep taxes down. There exists, therefore, a possibility that additional funds without further direction or orientation from provincial authorities might not be used differentially in favour of Francophones.

4. SECOND THOUGHTS ON SECONDARY COSTS

The cost data for secondary instruction provides a classic case of how every type of analysis seems to run into a blind alley. Statistical tests of significance turned up a possibility that schools in northern Ontario cost more than those in the south along with a few other findings that might seem, initially, like mere incidentals. But if one views the results in the light of policy debates, the results are highly significant.

The first major point to note is that the data did not support any important generalisations -- about size of school, type of school or cost by language group. And yet, one might have expected something more clear. Supplementary grants are made on the basis both of language and, for mixed secondary schools that qualify for the French-English composite secondary school weighting factor (the sample included a number of these),size of school. Furthermore, in the study of allocation processes, the boards that have both mixed and unilingual secondary schools uniformly operated with the expressed intention of allocating additional resources to mixed schools. Yet the cost results by type of school were contradictory: one board appeared to grant funds in a way that favoured mixed schools more than French and both more than English, whereas another board had results suggesting the precise opposite. The differences were not sufficiently large to produce a statistically significant effect.

The same remarks made about within-board allocations at the elementary level apply also to secondary education:

a) Such allocations may have no relevance in situations where the cost differentials of instruction in a mixed language environment affect the total level of expenditures incurred in the board on behalf of both language groups.

b) If the general levels of expenditures in the boards result mainly from the availability of greater provincial support through the French language grants, then the internal allocations are important.

Again, neither general hypothesis can be definitively tested.

Two aspects of the research findings cause a major difference in interpretation of the secondary cost findings: the results on service levels, and the question of new school creations typified by prototype Case 2.

4.1 SERVICE LEVELS AND COST

If the absence of major definitive findings on secondary school costs is considered in the light of service levels, the whole tone of the discussion and its focus shift. The analysis brought forward evidence that there exist areas of "service need and potential inequality" affecting secondary education of Francophones very seriously -- the general problem of services in mixed secondary schools, the matter of cultural resource shortages and, finally, a whole range of special services which were rated extremely low by secondary school principals. IF this identification of areas is correct, then the questions may be asked in a different way. "Why are such conditions allowed to persist and why are board allocations not deliberately weighted to do away with them?" IF the case can be made that present allocations leave the Francophones in a position of educational need, then one is hard pressed to explain why the school boards do not have internal allocation systems that clearly reflect recognition of the problem. The line of questions becomes increasingly inquisitorial: "Why are the differences allowed to persist?" "If inequality exists, is it important at all whether the provincial government's grant system pays entirely for all the help the Francophones need?" and so on. In short, the ground has shifted and the main concern is not whether the principles inspiring the structure of the grant system are reflected in board allocations; the question is whether the boards are fulfilling their mandate with respect to educating Franco-Ontarians. In this context, failure to find cost differences that are significant in both statistical and real terms, is a significant result.

This line of reasoning is all based on the assumption that the identification of areas of need is correct. It would be grossly unfair not to point out the doubts that should be raised about the relevance of these results:

a) The data on mixed secondary schools includes various "indicators" and even some that are so dubious as to bear the name of "psuedo-indicators"; indicators indicate but do not prove. In the discussion of the mixed schools, it was pointed out that there is virtually no reliable data as to the effect of the schools on those who attend them. In addition, some of the indicators are built around the principle of expected level of service, in which all relevant services are expected to be in the language of the users. If it were found that important sectors of Francophone opinion favoured retaining mixed secondary schools with large amounts of English curriculum in them, the whole line of argument on mixed secondary schools becomes highly problematical.

b) The analysis of support and special services is based in part on an analysis of the ratings of services given by principals of French and mixed secondary schools. However, the fact that the ratings are very low does not mean necessarily that the Francophones are receiving a much lower level of service than Anglophones; it is possible that a survey of principals of English language schools would have revealed, also, low ratings on many of the services.

c) The data on cultural resource needs of Francophones are generally acknowledged by large sectors of opinion. Rather than doubt that the needs exist, reservations are sometimes expressed about the role of the school in dealing with them and, particularly, in compensating for the general cultural makeup of society.

On balance, the authors of the report believe that the identification of areas of need is accurate, despite the doubts. It is notable, for example, that for most of this century Franco-Ontarians have fought for the right to be educated in their own language; the phenomenon is enduring and widespread. The recent example of a struggle lasting for several years to obtain a unilingual French secondary school in Essex County, rather than retain a mixed secondary school, is a typical example of local mobilization in favour of the principle that we have named abstractly "expected level of service". Still, it is necessary to admit that, at the local level, different countercurrents of opinion may exist and, where they do, it is clear that the opinions of Franco-Ontarians themselves must take precedence over "indicators", however well chosen and administered. Meanwhile, on a province-wide basis, there is no doubt as to their sentiments. This general historical phenomenon gives the authors some confidence in the results of the service analysis and its relevance.

If one raises the issue of how to deal with the service needs encountered at the secondary level, the analysis of allocation systems within secondary boards gives some hope. In particular, it should be noted that, in the boards under study, improvements had been made in a few of the mixed secondary schools in the period of a year, for example as regards course offerings. However, the present allocation mechanisms did not result in major differential expenditures in favour of Franco-Ontarians within the boards studied. Therefore, we must point out the possibility that, if additional grants are made available without further direction or orientation from provincial authorities, they may not be used differentially to favour Francophones.

4.2 CREATING NEW SCHOOLS

The prototype analysed as Case 2 in the sub-section on the logic of differential costs raises a wholly different set of problems. The case, it will be recalled, dealt with the costs of operating two schools to serve the same geographic area. The study of the apparent "added costs" of operating the "extra" school led to a reduction in the original estimated cost to the board, to a figure of about $230,000, using a slightly different logic. Of this amount, some $136,000 were ordinary expenditures; when compared to the estimates arrived at by the methods used in our study for the main analysis of costs, the sum was much less than what would have been revealed by our study, approximately

$250,000. On the other hand, no mention was made of the remainder, consisting of an annual bill for amortization costs of $94,382. As with other boards facing new construction to build a school "for Francophones" (the new school in question actually was the mixed school with mainly English clientele), the board had made a decision to incur major capital expenditures that resulted in a constant, long-term outflow of money. Moreover, decision making and public opinion tend to deal with the rather large total capital outlay -- usually in the millions for a secondary school -- rather than the much smaller yearly amortization. Even though the rates of subsidisation for capital expenditure are generally higher than for ordinary expenditure, this psychological phenomenon poses a serious and continuing obstacle to the creation of new schools to serve Francophones, at least at the secondary level.

In a true sense, boards are incurring an "added cost". It is not for our research to state what a fair proportion would be for the provincial government to pay in situations where new school creations arise. However, it is clear that the provincial response is the decisive factor in almost all cases where extension of services to Francophones requires a new school. In most situations, the higher the provincial contribution, and the stronger the guarantee that it will continue for the entire period of capital amortization, the more likely it is that new schools will be created. This may be restating the obvious; but it is particularly relevant for any new policy intended to assist a school board to restructure its system so as to reduce numbers of mixed schools and introduce unilingual ones.

5. RESPONDING TO SERVICE NEEDS

A large portion of this report has dwelt on areas where, in the boards studied, Franco-Ontarians appear to need better educational services. There may be other areas of need, in addition to the ones listed, but we have concentrated on those that were not related to a single board. There may well be a lot of dispute about the validity of the case built in those parts of this report. In this interpretation, we shall assume for a time that the case is valid and try to deduce from the data a few of the alternatives for policy making.

The first alternative has to do with accepting the results at all. The main alternatives are (i) ignore the report, (ii) act on it, (iii) employ follow-up studies to make sure there are grounds for action. Our assessment of the evidence is that one should probably act on most of the report, but do follow-up studies in a few important areas. Why this confidence? The answer is to be found in the various official reports made over the years on the issue of schooling for Franco-Ontarians. The most relevant one to consider is the 1972 Report of the Ministerial Commission on French Language Secondary Education. If one compares the content of the policy recommendations on services from that report with the findings on services levels in our research, one might think that our findings were, in a different sequence, the basis of the Commission's recommendations.
There are differences of emphasis, obviously, and this report provides a great mass of detail. But the general impression has to be one of *déjà vu*, or "nothing new under the sun", as the English phrase would say.

We feel that certain follow-up studies should be carried out.

The most important areas are: the effect of school type on students, the organisation of special education and related services to Francophones, and the organisation of support services to Francophone teachers. Given the pervasive nature of the problems, we do not feel that the report should be ignored.

The next question is: Who should act on the report? All too often in the course of our study we have encountered a prevailing atmosphere of passiveness toward problems of Francophones -- not from the educators in the boards, by and large, but from the general atmosphere surrounding decisions taken in the past. The prevailing public opinion in many areas is that "if Queen's Park wants it, let them pay for it". In short, because Franco-Ontarians have been denied equal educational services in the past, and continue to be denied them, they should not get them now unless some special provincial concession pays every penny of the new services. We recognise that this attitude is not likely to change very quickly, but it is at the root of the whole policy question. The major responsibility for action in this domain is in the hands of the existing school boards using their existing powers. For this reason, the question should be rephrased. It is not "who should act on the report (and other data)?", but rather: "How can the two levels of governance in education, school boards and provincial government, best coordinate their actions?" In the following, we shall comment on the different service areas to show some of the options, most of them directed at the provincial level and intended to buttress action by school boards, not to replace it or to provide excuses for delays at the local level in acting upon real problems.

Just as a reminder, let us point out the main types of action possible at the provincial level:

(i) administrative: the use of the Ministry of Education apparatus to carry out policy directly;

(ii) informational: providing data to school boards and the public to focus on problems;

(iii) regulatory and legislative: restructuring the obligations of school boards and related educational agencies to carry out policy;

(iv) financial: providing appropriate financial incentives and constraints to support the implementation of policy.

Now, for the services.

With regard to the mixed secondary schools, as already mentioned, it would be of great utility to have a long-term study of the effects of type of schooling, as a basis for continuing to inform public opinion on a topic that is difficult, confused and complex in the extreme. School boards have it in their power to act in ways that would continue to develop course offerings in mixed secondary schools as well as to make use of the Symons Commission report premise:

> ...where a sufficient number of students can be assembled, then a French language school must be provided, if it is the wish of the French-speaking community concerned. Similarly, failing a school, then the French-speaking students should be in a French language wing of the school, and failing a wing, then they should be in a French language class, provided that their numbers justify such arrangements and that it is the wish of the Franco-Ontarian community concerned. (p.16)

In our study, in the cases where the administration of mixed secondary schools had made a serious effort to develop French language course offerings, there were immediate limits to their efforts, both lack of teachers and lack of space for organisation of courses. It is likely that, in this area, provincial direction and assistance would be useful. If the financial allocation mechanisms within the boards studied are representative of those found in other boards having mixed secondary schools, then specific mechanisms will have to be found to ensure that additional resources are channelled in the direction of the policy objectives set out. Among the possibilities are modifications to the grant system to provide incentive grants based upon the degree of continuity of studies and range of choice offered at the secondary level to Francophones in secondary schools. This system would have the advantage of making it financially very attractive to establish unilingual secondary schools, because, at least in the boards studied, the range of course offerings in unilingual schools was very broad even though pupil:teacher ratios were not always very high. In addition, where small unilingual French secondary schools are established, one might consider a special "tied" incentive grant to assist in maintaining a broad range of services. In some smaller schools, one might also consider special relaxation in parts of the grant regulations regarding attendance and course hours so that, for example, a course might meet only three or four times a week, with the remainder of time organised in appropriate supervised activity where students worked on their own. This might be most appropriate at the upper levels of secondary school where student numbers are small.

An alternative to the complexities suggested above would be to proceed by legislation and regulation to institute minimum service level requirements, then have an "untied" grant system with appropriate additional incentives to "sugar the pill". Under either system, the question of capital costs for new buildings will require careful attention, as stated earlier. Since some boards complained to us about changes in provincial grant policies, it will be psychologically important that any provincial commitments in the capital expenditure area be given for the entire period required to amortize new buildings.

With regard to cultural resources, it is clear that many domains are already receiving attention. This applies particularly to subsidies being given through the provincial Learning Materials Development Plan to stimulate the writing and publishing of additional textbooks. Certain anomalies in the holdings of school libraries have been pointed out, including the impact of excessive reliance on per capita grants, which favour larger schools. Since such schools are often in urban areas with more cultural resources available outside the educational system, this may result in the anomaly of providing resources inversely in proportion to need. However, no generic prescription is possible; rather, a more differentiated allocation policy. Given the large cost differentials for French language collections and the special needs of mixed secondary schools, board allocation policies may require careful scrutiny, perhaps with outside technical advice.

A more general issue is the use of the school as a community cultural resource. It seems highly desirable that mechanisms be found to ensure that such usage is widespread and far broader than in the usual "community school" program. This might involve, among other things, concerted action by more than one ministry to ensure that Franco-Ontarian cultural needs are met. (More specifically, the Ministry of Culture and Recreation and the Ministry of Colleges and Universities could easily combine forces with the Ministry of Education, and the Ontario Educational Communications Authority to develop programs affecting libraries, the arts and adult education.) Obviously, since such services go far beyond the usual educational realm, the costs should not be borne by the local school boards, so that effective grant mechanisms are required. The concept of earmarked grants in this general area did not appear to encounter any major resistance from persons contacted in the study.

Our study dealt only briefly with special education services to Francophones. Given the complexities of the pedagogical issues involved, no interpretation can be given to the report, except to note the extreme concern of educators consulted about the quality of services to Francophones. As stated earlier, the area deserves focused additional research.

Remedial education problems at the secondary level are obviously acute, particularly in the mixed secondary schools. The problem may require a double approach for solution: First, school boards may have to make particular allowance for the special needs of Franco-Ontarians in making staffing decisions at the secondary level. Secondly, a portion of the learning difficulties are probably linked to other aspects of the service problem --- textbooks, library facilities and the "cultural atmosphere" of schools (particularly where students study in two languages).

Areas such as lack of French language guidance information, lack of tests and so on can probably best be addressed at the provincial level through appropriate administrative and informational action.

Although seldom emphasized, our study highlighted the particular problems faced by Francophone educators, particularly the individual teacher. Ultimately, the teacher is the last resort to overcome every sort of handicap and difficulty that faces the young Franco-Ontarian. Every possible means should be explored to provide them with the sort of focused support that assists them in dealing with the specific problems of Franco-Ontarian children. Even at the secondary level, where services of pedagogical consultants are sometimes considered superfluous for well-organised secondary schools, we find a strong, persistent demand for additional assistance. As we noted earlier, the strength of the demand for additional services at the level of regional offices of the Ministry of Education was quite high, both in the North and in areas of the South, remote from traditional Francophone population concentrations. Given the small size of the populations involved, one might consider alternatives involving consultants located either in a ministry office, or "pooled" between groups of boards. (Similar remarks apply to areas such as psychological services, which are already treated in this fashion to a large extent.) Obviously, financial resources for this could not come from the revenues of a single board; at the secondary level, where consultancy services are often provided only via superintendents and department headships of secondary schools, the special needs of Francophones will go against prevailing board philosophies of operation and, therefore, would probably require full subsidization if organized under board auspices.

6. A FINAL WORD

In this critical interpretation, we have felt the role of researchers to show how our findings might relate to decisions on costs and services. Nothing in our research permits us to state what should be the response of authorities at the provincial level to the types of options presented; nor, as researchers, can we tell a school board what is good for it. The interpretation has commented on different options in the light of the possibility that action may be taken to improve services to Franco-Ontarians. Our findings regarding the "added costs" psychology of decision-making suggest, that, if provincial action is decided, improvements will require both financial stimuli and different methods of providing them, combined with appropriate actions at the levels alluded to earlier ---administrative, informational and eventually regulatory. However, the decision to take action and what action to take must always be based upon broad considerations that cannot be dealt with by research. The interpretation has been offered in full recognition of the fact that it goes beyond the research results, but in the hope that it will be considered as one among many inputs to the difficult task of making decisions intended to improve educational opportunities for Franco-Ontarians.

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APPENDIX A: PRELIMINARY RESEARCH HYPOTHESES

I. GENERAL HYPOTHESES

**1.1 GENERAL: The cost of a unilingual French school board is higher than the cost of a unilingual English school board.

**1.2 GENERAL: The cost of a bilingual French-English school board is uniformly higher than the cost of a unilingual English school board.

N.B.: As indicated in the text (I:3.2.2.; II:3.3.3.2), this hypothesis is analytically impossible to prove: Since it is impossible to control for all the variables of service level and local situation, no two boards are strictly comparable.

1.3 GENERAL: Raising the level of service to Francophones, either by adding a new service or improving an existing one, tends to raise costs above those which existed previously.

1.4 GENERAL: Several factors associated with providing instruction to Francophones as well as to Anglophones within the same school board tend to raise costs on a basis which varies according to local circumstances.

II. DERIVED HYPOTHESES RELATED TO EXISTING SERVICES

The following hypotheses are linked to the proposition in hypothesis 1.4:

2.0 Transportation

2.1 Transportation costs for Francophones tend uniformly to be higher than for Anglophones.

**Indicates those which have been rejected *a priori* as impossible to prove or disprove.

2.21 Transportation costs for Francophones tend to be higher than for Anglophones in response to certain local circumstances:

- x low density of Francophones
- x rural nature of the Francophone population
- x comparatively small number of instructional sites (schools)

2.22 Transportation costs for both Anglophones and Francophones tend to be higher if both groups are characterized by one or more of the following factors:

- x low population density
- x rural nature of population
- x comparatively small number of instructional sites
- x language groups are uniformly mixed across the school board, rather than concentrated in their respective areas

2.23 The above may characterize an entire school board or may be found within some portions of a school board (except for the last sub-proposition of 2.22).

2.3 Francophones tend to be bussed more than Anglophones.

3.0 Classroom instruction costs

N.B. It is not assumed that all instruction is equally good, nor that all instruction corresponds to the same level of service. In the following, unless otherwise specified, each should be understood to imply "at a similar level of service...".

3.1 Classroom instruction costs tend uniformly to be higher for Francophones than for Anglophones.

3.21 Classroom instruction costs for Francophones tend to be higher than for Anglophones in response to certain local circumstances:

- x smaller mean size of schools (usually correlated with the following two factors)
- x low population density of Francophones
- x rural nature of Francophone population

3.22 Classroom instruction costs for both Anglophones and Francophones tend to be higher if both groups are characterized by one or more of the following factors:

- x smaller mean size of schools (usually correlated with the following two factors
- x low population density of Francophones
- x rural nature of Francophone population

3.31 In areas where population densities are above a minimum threshold (to be determined), the level of service to Francophones tends to be lower in all areas as regards pupil-teacher ratio.

3.32 The level of service to Francophones tends to be lower in all areas as regards the following factors:

- teacher qualifications
- teacher experience
- teacher's previous training in the native language
- access to classroom materials in the native language
- access to secondary services in the school and school board

3.4 Specific instructional formats tend to have a higher cost in areas where they must be provided to two language groups:

- secondary instruction with a full range of subject choices

- secondary instruction with access to special facilities (shops, laboratories, athletic equipment, etc.)
- specialized instruction for the handicapped
- specialized instruction for those with learning problems

3.5 For all the specific instructional formats listed under 3.4, Francophones tend to receive a lower level of service, if the service exists at all.

4.0 School-level services

4.11 Within unilingual French or English schools there is no significant difference in the costs of the following:

- supervision of staff in their own language
- recreational activities
- audiovisual services
- provision of a librarian
- catering and other environmental services
- office staff costs

4.12 Within unilingual French schools there is a tendency to have higher costs for the following elements of services:

- textbook acquisition
- library materials acquisition
- audiovisual materials (software) acquisition
- staff recruitment
- telephones

4.21 Within mixed (French and English) schools, there is a tendency to have higher costs for the following elements of services:

- supervision of staff in their own language

- all elements listed in 4.12
- community-oriented activities

4.22 Within mixed (French and English) schools there is no significant difference in the costs of the following services:

- recreational activities
- audiovisual services
- provision of a librarian
- catering and other environmental services
- office staff costs
- counselling and guidance

4.31 In both unilingual and mixed schools, Francophones tend to receive a lower level of service as regards the following services:

- textbook availability
- library holdings
- audiovisual materials (software) availability
- counselling and guidance, as regards support materials available to staff
- staff training in their own language

4.32 In unilingual schools, Francophones tend to receive a lower level of service as regards the following services (in addition to those in 4.31):

- supervision of staff in their own language

4.33 Independently of locale, for all items not mentioned in 4.31 and 4.32, Francophones and Anglophones tend to receive the same level of service, provided that instruction is given in the native language.

5.0 Board-level services

5.1 Independently of board size and population distribution, boards providing supervisory services and pedagogical consultation services in two languages tend to have higher costs than unilingual boards.

N.B.: This constitutes one area where comparisons with unilingual boards can be carried out, despite the *a priori* rejection of the general case of comparisons with unilingual boards. The reason is that a representative sampling of English language staffing levels should be possible and the differences sufficiently large to permit drawing of conclusions.

5.2 Specialized services for the Francophone public at the board level will ordinarily have identifiable costs which would not exist if the services did not exist. This applies particularly to the operation of the French Language Advisory Committees and to bilingual public information programs.

N.B.: This constitutes an area where an existing service can be treated as an added cost, almost as if it were a new cost. The reason is that such services are usually recent creations and fall somewhere between "new" and "traditional" services.

5.3 General administrative costs -- i.e., other than the cost of supervision, pedagogical consultancy and operation of specialized programs, will be similar for boards of all types, independently of the language makeup of the populations served.

5.4 The level of service provided to Francophones at the board level will tend to increase with the size of the board and with the total numbers of Francophone students enrolled. From this it follows:

5.41 The level of service to Francophones will be correspondingly less than that for Anglophones, the smaller the board and the smaller the total numbers of Francophones enrolled.

5.42 In the larger boards with large Francophone enrolments, the level of services provided to the two language groups will be roughly equivalent, except as regards the provision of a French Language Advisory Committee or, in rare cases, of an English Language Advisory Committee.

III. DERIVED HYPOTHESES RELATED TO NEW SERVICES

The following hypotheses are linked to the proposition in hypothesis 1.3:

6.0 The examination of the creation of newly created services or recent increases in level of service will make it possible to divide these into two types:

- those which result consistently in an increased cost
- those which are achieved without increases in cost

6.1 The majority of cases in which an identifiable increased cost is found will be those in which an entirely new service is created in the place of one which did not exist (e.g., a new school, a new principalship, a new consultant).

6.2 The majority of cases in which no increase in cost occurs will be those in which the quality of an existing service is improved.

6.3 It will be found by inspection of the cases under 6.2 that very major improvements in level of service can be achieved in the province without major new expenditures, the prime factor involved being the decision by local authorities to proceed with the necessary accommodations.

APPENDIX B: INDICATORS OF LEVEL OF SERVICE FOR FRENCH LANGUAGE INSTRUCTION BY SERVICE CATEGORY

PS1: Regular Instruction (S01)

F.1. Level of academic and professional preparation defined in terms of:

(a) -number of years successfully completed at the secondary and post-secondary level

-intensity of French language instruction defined in terms of number of years of French study (ranging from studying French as a second language to total academic and professional training programs in French)

-type and duration of professional pre-service training defined in terms of number of years spent in pre-service education and the type of certificate obtained

-type of professional in-service training defined in terms of courses, seminars, workshops, lectures etc. attended since entering the teaching profession

-number of years of teaching experience

-preparation for the teaching of English as a second language

F.1 (b) Curriculum (S01): Spread of French language courses defined in terms of:

-type of program(s) offered (applicable only to secondary schools offering total instruction in French)

-number of courses offered using French as language of instruction

-type of courses offered (generally speaking technical courses are more expensive than most of the courses offered in the academic program)

-provision of specialists in special subject areas e.g. music, art, physical education, etc.

-concentration of extra-curricular activities defined in terms of number and type of activities organized for involving Francophone students (student participation can be adversely affected by busing)

-provision of kindergarten and/or junior kindergarten

E.1 In-class resources (reference books, special equipment/non-capital equipment).

-availability of text books in French and their choice in various subject areas

-number of reference books in various subject areas

-number of books of general interest

-audio-visual equipment (cards and slides used in the teaching of reading equipment used in independent study, e.g. teaching machines with teaching material, tapes and video-tapes etc.).

PS2: Student Services for Regular Instruction (S02)

F.1 Remedial instruction)
)
F.2 Counselling and guidance)
consultative services) Provision of special services
Testing and evaluation)
Psychological Services)
Religious advice)

-provision or non-provision of a particular service in French

-qualifications of personnel providing these services (working knowledge and communicative skills in French)

-availability or non-availability of relevant materials for purposes of providing the foregoing services adequately to Francophones e.g. standardized tests, display materials for the Guidance Office to assist students to make educational and vocational choices.

E.2 Library Facilities:

-number of reference books by subject area in the library (a separate count of French and English books for mixed schools)

-qualification and communicative skills of the librarian (unilingual--French/English or bilingual)

PS3 Community School Interaction (SO2)

A.3 Grade reporting, student records:

- language used in reporting student's progress to parents
- mode of delivering progress report (student, mail, interviewing on a regular basis, interviewing of selected parents)
- telephone contacts made with students' parents

A.1 Participation:

- existence or non-existence of parent-teacher or home school association
- number of meetings held by parent-teacher associations within the academic year and the language primarily spoken at these meetings
- parental involvement in decision-making

SS1: Teacher/Staff-used services (SO2)

- availability of supervisory staff (suptd., principal, vice-principal, supervising teacher)
- supervisory skills, training and experience of supervisory staff
- Language of communication exchanges of supervisory staff and teachers. (Taking into account all combinations)
- number of supervision or contact hours with staff involved in French instruction (or number of staff members supervised by each supervisory person.)
- Language generally spoken at staff meetings
- Language used in circulating important news and/or notices among staff members

A.3 School Office--data handling:

- Language(s) generally spoken by those members of the staff who come in contact with teachers

(facility with speaking and understanding spoken French language)

F.3 Pedagogical advice (from department head, etc.):

-Language of communication (spoken as well as written)

-provision of supplementary information (community resources, etc.) in specific subject areas.

-frequency of pedagogical advice received

SS2 Environmental Services (S02)

E2 Building:

-Provision of physical plant according to following gradation:

- -separate classes
- -separate wing
- -separate school
- -square footage per pupil by type of program offered
- -quality of the physical plant in comparison with the provincial standards
- -mean age of school buildings

E2 Maintenance

E3 Utilities

R1 Catering Services

PS4 Special Instruction and Student Services (S03)

F1 Summer School and night school:

-number and type of course(s) offered in French

F2 Education of exceptional children

-number of and types of self-contained* classes, withdrawal programs operated with the assistance of department of special services, programs operated for exceptional children, type(s) of exceptionality given priority in designing these programs, e.g. learning disability, behavioral problems, extreme deviation in terms of mental ability, both extremes, i.e. giftedness and retardation.

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*Self-contained is not necessarily better for the child than other alternatives that are less expensive

-special qualifications, training and experience of special education teachers

-quality or type of assistance and supervision received from the Department of Special Services.

-number of handicapped children of compulsory school age in the school jurisdiction who are not enrolled in any school

-provision or non-provision of in-service training of staff for the education of exceptional children

E1 Learning materials and equipment for the education of exceptional children

-provision of learning materials in French

-provision of equipment and facilities for physically handicapped children

PS5 Transportation (S03)

T1 Pupil busing

-proportion of students bused

-number of students bused for exceptional distances

T1 Transportation of handicapped

SS1 Teacher/Staff used services (S03)

A2 Supervision

-provision or non-provision of supervisory staff

-specialization, supervisory training and experience of staff

-ratio of supervisory staff to teachers

-number of schools and number of teachers supervised

F3 Board consultancy on pedagogical matters, in-school professional development

-provision or non-provision of consultation on pedagogical matters

-provision or non-provision of in-service professional training for teachers and supervisory staff

SS2: Environmental Services (S03)

A3 Data handling

PS6: Community-Board Interaction (S04)

A1 School board meetings

A1 FLAC Committee or committee of parents

-frequency of meetings
-level of involvement by area of shared concern
-provision of continuing education programs in French language
-selection of staff for implementation of F.L. programs for adults
-sharing of facilities and resources (physical plant and library facilities) with community for a variety of educational, social and cultural purposes
-tapping of community resources for obtaining resource people for specialized subjects
-scrutiny of willing and able parents as teacher-aides to reduce the handicap of pupil-teacher ratios

A3 Information programs

-provision or non-provision of programs

F2 Personnel providing information

SS1 Teacher/Staff-Used Services (S04)

E1 Audio-visual services

-availability or non-availability of A.V. materials (tapes, video-tapes, films, etc.) in various subject areas in comparison with materials available in English

EL Resource Centres

- degree of usefulness of available resources and materials to French language reference and curriculum materials for teachers

A2 Supervision

- provision or non-provision of supervision
- area of specialization, supervisory training and experience
- number of schools/classrooms supervised

SS2 Environmental Services (S04)

A3 Central financial and similar services

T2 Delivery services

E2 Board Office buildings

PS7 Community-Region Interaction (S05)

A1 Communication programs

- Liaison with post secondary education institutions and community representatives (e.g. FLAC) re: education of Francophones, training of teachers for staffing F.L. schools

A1 Community Assistance

- community involvement in decision-making concerning the education of Francophones

A Services to individual (exception basis)

SS1 Teacher/staff used services (S05)

A2 Supervision

- provision of French-speaking supervisory staff
- specialization and supervisory training and experience of staff
- ratio of supervisory staff to teacher

F3 Pedagogical Advice

-provision of curriculum and field services to school boards and schools (number of school boards and/or schools receiving such services).

SS2 Environmental/Services (S05)

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INDICATORS OF EFFECTS

-retention rate of schools by type of program

-transfer rate(s) from one program to another with the same school or to another school within the board

-participation in extra-curricular activities (it could be inversely related to the distance travelled by the student and busing).

-rate of teacher turnover (percentage of withdrawals)

-number of students who have to be transferred to other boards for instruction in French language

-percentage of students receiving (or expected to receive) graduation diplomas.

APPENDIX C:

TECHNICAL NOTE ON METHODS OF CALCULATING REVENUE FOR FRANCOPHONE SECONDARY SCHOOL STUDENTS

There are four distinct ways in which additional revenue may be made available to boards to help defray additional costs attributable to the provision of French language instructional units in secondary schools:

1. Grants on the "eligible sum for French language instruction". These provide the board with additional provincial funds calculated at the board's percentage rate of grant on the product of the number of Francophone students for whom French is the language of instruction and certain dollar amounts per pupil per subject (to a maximum of five) set out in the grant regulations: e.g., if a board had an Average Daily Enrolment (ADE) of 200 students, each of whom was enrolled in five subjects taught in French, the "eligible sum" for the calendar year 1976 would have been \$39 x 200 x 5 = \$39,000. The grant (supposing the board's percentage rate of grant to have been 75) would have been \$29,250 or an average of \$146.25 per weighted pupil. The extra revenue is unaffected by whether or not the board's ordinary expenditure is above or below its grant ceiling: its recognized ordinary expenditure (ROE).

2. Additional provincial money to compensate for the additional costs of operating small bilingual composite secondary schools. Such additional money is fed into the system through a grant weighting factor. It is the nature of grant weighting factors in the Ontario system that, from an individual board's point of view, the additional money generated by such factors is provided entirely by the province or, conversely, by a proportional reduction in provincial grants (increase in local taxation) on behalf of all students in the province. This grant, too, is

unaffected by whether or not a board's ordinary expenditure is above or below its ROE ceiling.

3. Additional ordinary expenditures attributable to French language instructional units are eligible for grant at the board's percentage rate of grant to the extent that they fall within the board's grant ceiling (ROE). This source of funds is unavailable to boards whose ordinary expenditure, exclusive of the additional expenditure, is already in excess of its ROE.

4. Additional extraordinary expenditures attributable to French language instructional units (capital expenditure and transportation, and debt charges on required new construction) are eligible for grant at the board's percentage rate of grant on extraordinary expenditure to the extent that they are recognized by the Ministry for grant purposes.

Some comments on these four sources follow:

1. This grant is simple to understand. The "eligible sum" per pupil is the same for all boards but the grant is inversely related to local relative tax-paying ability.

2. This grant, which goes to only comparatively few boards, is less well understood. A common error is made as follows: Let us suppose a board has a weighting factor for bilingual composite schools (BiCom factor) of .01. If its total ADE is 1,000 pupils this factor alone entitles it to 10 extra pupils. What is sometimes done is to multiply these 10 extra pupils by the ROE ceiling ($1,712 in 1977) and then calculate the extra grant by using the board's percentage rate of grant: e.g., grant for bilingual composite schools = 10 x $1,712 x .75 = $12,840. But this weighting factor is also used in calculating the board's rate of grant; the net effect of the two operations is that the full 10 x $1,712 = $17,120 is in fact the additional grant available

FIGURE 1: SAMPLE CALCULATION

Item		a Without BiCom W.F.[1]	b With BiCom W.F.	Formulas
1.	ADE (Sept. Enrol.)	1,000	1,000	
2.	Weighting Factor	1.09	1.10	(2b) = (2a) + .01
3.	Enrolment for Grant	1,090	1,100	(1) x (2)
4.	WADE	1,090	1,100	(1) X (2)
5.	Equalized Assessment	$163,903,300	$163,903,300	
6.	EA/WP	$150,370	$149,003	(5) ÷ (3)
7.	Assessment Index	1.10	1.09	(6) ÷ 136,700
8.	Grant %	49.4%	49.86%	100 - {46 x (7)}
9.	Expenditure per ADE	$1,900	$1,900	
10.	ROE ceiling/ADE	$1,866.08	$1,883.20	$1,712 X (2)
11.	ROE	$1,866,080	$1,883,200	(1) X (10)
12.	Grant on ROE	$921,843.52	$938,963.52	(11) X (8) ÷ 100
13.	Increase in Grant attributable to BiCom W.F.	$17,120		(12b) - (12a)
14.	Provincial ADE	2,000,000		
15.	Board's Share of Prov. ADE	.05%		(1) ÷ (14) X 100
16.	Local Board's Loss of Grant	$8.56		(13) X (15) ÷ 100
17.	Net BiCom W.F. Grant	$17,111.44		(13) - (16)

[1] BiCom W.F. = Bilingual Composite Weighting Factor.

N.B.: Since this board is wealthier than the provincial average, it would lose slightly more than the proportional $8.56 -- perhaps $9.00.

to the board (slightly reduced, it is true, on the macro-economic level, by the decrease in all boards' grants to pay for this extra grant to the board concerned). The tabulation in Figure C. will show that this is so.

3. It is obvious that, if a board is operating below the ROE ceiling, it is already receiving its percentage rate of grant on all ordinary expenditures, including any additional expenditures attributable to the operation of French language instructional units. In such cases, the special grant on the "eligible sum" can result in more than the additional cost being met from provincial revenue. Where the additional expenditure on FIU's is enough to put the total ROE/WP over the grant ceiling, the board receives its rate of grant on that part of such additional expenditure which falls below the grant ceiling.

4. Since, for the province as a whole, the approved cost of transportation is over 95% of actual expenditure on transportation, it is safe to assume that, in most cases, additional transportation expenditures attributable to Francophone students will be included in approved expenditure. In most cases* there is a grant of over 90% on increases in transportation expenditures. Boards sometimes show additional transportation costs for Francophone students but fail to indicate any offsetting provincial grant.

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*But usually excluding the five large cities.